

ALEKSANDER PLUSKOWSKI

THE
ARCHAEOLOGY
OF THE
PRUSSIAN
CRUSADE

HOLY WAR *AND*
COLONISATION

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THE ARCHAEOLOGY OF THE PRUSSIAN CRUSADE

The Archaeology of the Prussian Crusade explores the archaeology and material culture of the Crusade against the Prussian tribes in the thirteenth century, and the subsequent society created by the Teutonic Order that lasted into the sixteenth century. It provides the first synthesis of the material culture of a unique crusading society created in the south-eastern Baltic region over the course of the thirteenth century. It encompasses the full range of archaeological data, from standing buildings through to artefacts and ecofacts, integrated with written and artistic sources. The work is sub-divided into broadly chronological themes, beginning with a historical outline, exploring the settlements, castles, towns and landscapes of the Teutonic Order's theocratic state and concluding with the role of the reconstructed and ruined monuments of medieval Prussia in the modern world in the context of modern Polish culture.

This is the first work on the archaeology of medieval Prussia in any language, and is intended as a comprehensive introduction to a period and area of growing interest. This book represents an important contribution to promoting international awareness of the cultural heritage of the Baltic region, which has been rapidly increasing over the last few decades.

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THE ARCHAEOLOGY OF THE PRUSSIAN CRUSADE

Holy war and colonisation

Aleksander Pluskowski

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To the memory of my father, Gregory, who never
leaves my thoughts

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PREFACE AND ACKNOWLEDGEMENTS

The idea for this book developed following my initial work with two colleagues – Krish Seetah and Mark Maltby – on a faunal assemblage recovered from excavations at Malbork castle led by Maria Dąbrowska. However, it was not until I started to teach the archaeology of the Baltic crusades a few years later at the University of Reading that I realised how valuable a synthesis would be: for myself, my colleagues and my students. As I began to develop a research programme and network exploring the environmental impact of the conquest, colonisation and Christianisation of the eastern Baltic region, my experience of sites, landscapes and material culture rapidly increased, for which I am extremely indebted to my colleagues, collaborators and friends in Poland, Estonia, Latvia, Lithuania and beyond. The very process of writing this book shaped and informed the development of my own research, which in turn has fed back into the text. The end result is not intended as a definitive or comprehensive study – such an undertaking would result in a very heavy volume (or more likely a series of volumes) and is the prerogative of far more experienced scholars – but rather as an accessible milestone for the field which should be rapidly updated and replaced.

There are many people I would like to thank who have contributed in various ways to the successful completion of this book. First, I would like to thank the staff at the library and archive at the Castle Museum in Malbork, the University library and Institute of Archaeology library at Nicolaus Copernicus University in Toruń, the library of the Museum of Warmia and Masuria in Olsztyn, the British Library, the Warburg Institute and Cambridge University Library. All were incredibly helpful in enabling me to access publications and materials. Second, I would like to thank my colleagues without whom this book would not have been remotely possible. Although this book has largely focused on north-east Poland, the broader context and the development of my ideas has benefited from friends and colleagues further afield. In Poland I would like to thank Zbigniew Sawicki, Waldek Jaszczyński, Daniel Makowiecki, Marzena Makowiecka, Marcin Wiewióra, Maciej Karczewski,

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This preface was written when the book was a few months from completion, on a fiercely cold winter evening in Malbork castle. From my window I could see the moats filled with deep snow, the brickwork of the massive walls partially obscured by clinging frost and the imposing red towers delicately crowned with white mantles. Beyond, to the west, the River Nogat was completely frozen over. The accounts of the Prussian Crusade and the wars against Lithuania describe how the Teutonic Knights fought and won in the winter, when they could traverse through the inhospitable terrain of dense woods and wetlands. In the thirteenth century this Baltic frontier was lost and won in the snow. In 2011, the winter had brought everything to a standstill and driven everyone indoors. The castle, ravaged by wars, restored and reimagined, remained defiant and magnificent alone, more inspiring than ever. As a historical monument, UNESCO site, museum and research centre, it is the most vivid reminder of medieval Prussia – an extinct society that is increasingly attracting the interest of a global audience.

TERMINOLOGY AND GLOSSARY

The predominant language of crusaders, merchants and colonists in medieval Prussia was German, and so most of the place names of the region were Germanised; these in turn would be later Polonised. Several of these names contain earlier, Prussian roots, but that Baltic language has not survived except in descriptions and fragments preserved in external sources. This is discussed in more detail in chapters 1 and 2. Polish archaeologists tend to use modern Polish names to refer to sites in medieval Prussia. Lithuanian archaeologists, in turn, refer to the modern names of sites in north-east Prussia, which lie within the national bounds of modern Lithuania. In the Kaliningrad Oblast both Russian and German names are used interchangeably by scholars. Here, the replacement of place names following the incorporation of this region of eastern Prussia into the Soviet Union occurred within living memory. The use of modern geography is a standardised international practice for referring to the location of sites of any period. Historians tend to vary in their usage of modern and German names, although since they work with contemporary sources rather than material recovered from sites that may pertain to these sources, they are more likely to use historical names. On the other hand, whilst acknowledging medieval names, Polish historians writing for a Polish audience tend to render these place names into their modern forms. This trend is clearly evident in the latest synthetic work on the Teutonic Order's Prussian state produced by Polish scholars (Biskup *et al.*, 2009), where the medieval German names are rendered into Polish in the main text. On the other hand, Christian Christiansen and William Urban, the two most influential historians writing in English on the Baltic Crusades, used German names and anglicised all Polish names.

I have taken a different approach, which I feel is justified for an integrated understanding of the past and present geography of the south-eastern Baltic region. In order to enable readers to link archaeological and historical contexts more easily, I have used the standard convention of citing modern place names to refer to archaeological sites and a consistent rendering of medieval place names (a number had variant spellings) to refer to all other mentions of locations and regions. In some cases both names are used in the same phrase

or section. At the first mention of every medieval place name I have provided the modern equivalent in brackets. My somewhat unorthodox approach is not intended as an awkward compromise between archaeological and historical literature, but to aid the reader and make them more comfortable with switching between these two sets of toponymic systems. The archaeology of medieval Prussia takes places within the context of modern Polish, Russian and Lithuanian geography, whilst historical studies document a very different geopolitical setting that still remains a politically and socially sensitive topic in the Baltic Sea region.

I have abbreviated the Hospital of St Mary of the Germans in Jerusalem to Teutonic Order, interchangeable with Teutonic Knights and both further abbreviated to 'the Order'. Teutonic is simply a Latinised rendering of German and whilst the term 'German Order' is encountered in the scholarly literature, I have kept the Latinised form which is more typically used in the English-speaking world. Throughout, I have only capitalised Crusade when referring to the series of campaigns grouped as the Prussian Crusade. In addition to places names, I have anglicised various aspects of the Teutonic Order's organisational structure and the most important of these names are provided in the glossary below. Some German terms have been retained, and the Order's state is interchangeably used with the German *Ordensstaat*. This has not been done out of linguistic concerns, but as an additional means of bringing the English reader closer to the historiography of medieval Prussia. The glossary below provides a list of comparative place names referred to in the text for regions, castles, towns and additional terms, with English spellings that are largely based on German or Latin renderings. For a comprehensive list of names, see Bieszk, 2010.

Regions

There are many variants of regional names applied to the many territories of the south-eastern Baltic, the majority of which are associated with Prussian tribes as documented in external sources. These variants are discussed in some detail in Bojtár (1999).

German	Polish	English variant used in this book
Dobriner Land	Ziemia Dobrzyńska	Dobrin Land
Ermland	Warmia	Warmia (tribal) and Ermland (post-crusade)
Galindien	Galindia	Galindia
Kulmerland	Ziemia Chełmińska	Kulmerland
Löbauer Land	Ziemia Lubawska	Lubavia
Nadrauen	Nadrowia	Nadruvia
Natangen	Natangia	Natangia
Pogesanien	Pogezania	Pogesania

Pomesanien	Pomezania	Pomesania
Pommerellen	Pomorze Wschodnie	Pomeralia
Pommern	Pomorze	Pomerania
Samland	Sambia	Sambia
Sassen	Sasinia	Sasna
Schalauen	Skalowia	Scalovia
Sudauen	Jaćwież/Sudawia	Sudovia

The historical Memelland corresponds to the Klaipėda region in modern Lithuania.

Towns and castles

Throughout the book I have used a combination of place names to refer to sites in medieval Prussia. Modern place names in Poland, Lithuania and the Kaliningrad Oblast have been used whenever reference is made to an archaeological site or modern geography. All Russian names have been transliterated from Cyrillic into Latin. German names have been used for all other mentions of towns, castles and other settlements. In the case of Gdańsk, I have only used the German Danzig when referring to the Order's town, rather than the Slavic settlement. The German rendering was derived from the older Slavic name. In some cases I have switched between the modern and medieval names within the same sections. This is not designed to confuse the reader but to emphasise differences between the historical and archaeological literature, as well as to highlight the importance of understanding the complex dual identity of many of the settlements founded during the period of crusading and colonisation. It is hoped that readers will become familiar and comfortable with interchanging the names.

German	Polish	Russian and Lithuanian (where applicable)
Allenstein	Olsztyn	
Althausen Höhe	Starogród	
Angerburg	Węgorzewo	
Balga		Veseloe (Russia)
Barten	Barciany	
Bartenstein	Bartoszyce	
Bäslack	Bezlawki	
Birgellau	Bierzgłowo	
Bischöflich Papau	Papowo Biskupie	
Brandenburg		Ushakovo (Russia)
Brattian	Bratian	
Braunsberg	Braniewo	
Briesen	Wąbrzeźno	

Bütow	Bytów	
Christburg	Dzierzgoń	
Danzig	Gdańsk	
Dirschau	Tczew	
Eckersberg	Okartowo	
Elbing	Elbląg	
Engelsburg	Pokrzywno	
Eylau	Iława	
Fischhausen		Primorsk (Russia)
Frauenburg	Frombork	
Gollub	Golub	
Graudenz	Grudziądz	
Heilsberg	Lidzbark Warmiński	
Königsberg	Królewiec	Kaliningrad (Russia)
Kreuzburg		Slavskoye (Russia)
Kulm	Chełmno	
Lauenburg	Lębork	
Leipe	Lipienek	
Leunenburg	Sątoczno	
Löbau	Lubawa	
Lochstedt		Pavlovo (Russia)
Lötzen	Giżycko	
Lyck	Elk	
Marienburg	Malbork	
Marienwerder	Kwidzyn	
Memel	Kłajpėda	Klaipėda (Lithuania)
Mewe	Gniew	
Mohrunen	Morąg	
Neidenburg	Nidzica	
Nessau	Mała Nieszawka	
Neuenburg	Nowe	
Ossiek	Osiek	
Osterode	Ostróda	
Ragnit		Neman (Russia)
Rastenburg	Kętrzyn	
Rehden	Radzyń Chełmiński	
Rhein	Ryn	
Riesenburg	Prabuty	
Rogasen	Rogózn	
Rößel	Reszel	
Rosenberg	Susz	

Saalau		Kamienskoje (Russia)
Schönsee	Kowalewo Pomorskie	
Schwetz	Świecie	
Seehesten	Szestno	
Strasburg	Brodnica	
Thorn	Toruń	
Tilsit		Sovetsk (Russia)
Tuchel	Tuchola	
Wartenburg	Barczewo	

Select terms

Anglicised terms are used to refer to the officials and administrative units of the Teutonic Order's state. Only the most important have been rendered into English. The term *voigt* has been used in this book so that readers will recognise its Polish equivalent *wójt* in the archaeological literature, instead of the alternative term *advocate*, which is sometimes used in English publications on medieval Prussia.

German	English
Großkomtur	Grand Commander
Hochmeister	Grand Master
Kommende	Commandery
Komtur	Commander
Marschall	Marshal
Pfleger	Procurator
Spittler	Hospitaller
Trappier	Quartermaster
Tressler	Treasurer
Vogt	Voigt

Royal Polish lands sub-divided into *starostwa* (singular *starostwo*) are translated as elderships.

1

INTRODUCTION

Historical framework and sources

The castle at Malbork, a small town in the Pomeranian province of North Poland situated on the River Nogat, a distributary of the lower Vistula, is the largest fortified structure built from brick in the world, encompassing an area of around 20 hectares (Figure 1.1). Painstakingly restored to its fourteenth-century appearance following its partial destruction during the Second World War, the castle is the largest of the 218 fortified structures constructed between the mid-thirteenth and early-fifteenth centuries within the boundaries of modern North Poland, the Russian Kaliningrad Oblast and south-western Lithuania.¹ These lands were known to medieval Europeans as Prussia, and in the thirteenth century they were inhabited by tribes who had rejected the message of Christianity and continued to venerate gods in woods, meadows and lakes.

From 1230 a group of knights, members of the Order of the Hospital of St Mary of the Germans, more commonly referred to in the English-speaking



FIGURE 1.1 The castle at Malbork (Marienburg), view from the south-western bank of the Nogat

world as the Teutonic Order, unleashed half a century of sustained warfare on the Prussian tribes framed in the language of Christian holy war: crusade. This was a war sanctioned by the pope in defence of Christianity (or its representative, the Church), conceptualised as an act of penance. Participants in a crusade received a plenary indulgence; a full remission of the penalties that were the consequence of sin. This custom had fully developed by the early-thirteenth century (Fonnesberg-Schmidt, 2007, p. 7; see also Trupinda, 1999, pp. 17–64). Crusaders, their families and properties also came under papal protection (Riley-Smith, 2002). The motivation for launching crusades against the Prussian tribes may be popularly associated with the territorial ambitions of the Masovian dukes, but Polish colonisation of neighbouring regions from the mid-tenth century had been accompanied by evangelisation and the establishment of ecclesiastical infrastructure (see also chapter 2). At the end of the eleventh century, the First Crusade had linked holy war with the protection of Christians. This sentiment was echoed in the early-thirteenth-century call for crusades against the Prussian tribes, considered an active threat to Christians living in the Polish-held Kulmerland (*Ziemia Chełmińska*; Figure 1.2). Although participating crusading armies were mixed, and in the fourteenth century knights from all corners of Christendom journeyed to Prussia to crusade against pagan Lithuanians, the Teutonic Order drove and dominated the transformation of Prussian tribal lands into a European, Christian state. The

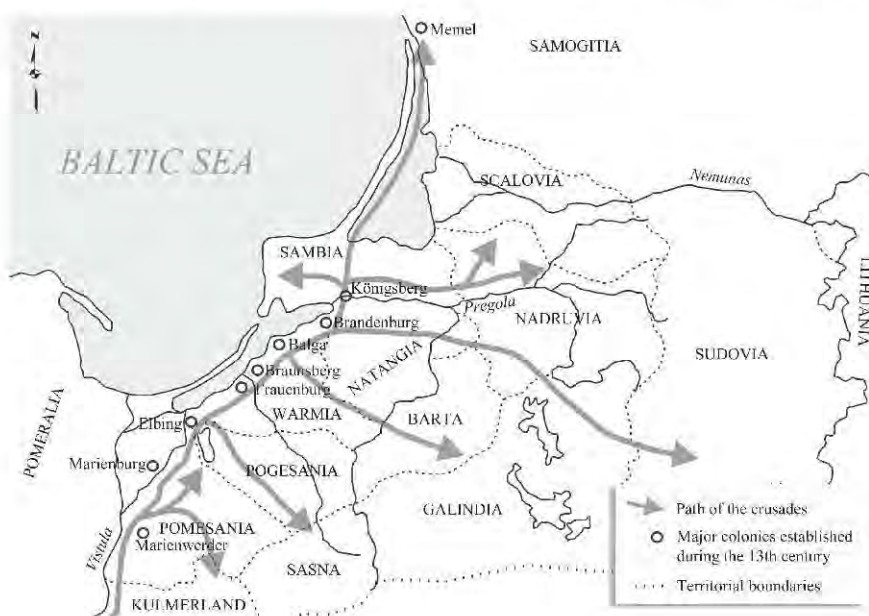


FIGURE 1.2 Prussian tribal territories and the path of the thirteenth-century crusades (redrawn aft. Biskup *et al.*, 2009)

Order created a state run by religious institutions: a theocracy. This was not so unusual in the case of the bishop's territories which found their equivalents in the Holy Roman Empire, but more so in the case of the Order's lands. The castle at Malbork, which became the headquarters of this state in 1309, was constructed in multiple phases over a period of almost 180 years. It was named Marienburg after the Order's most important patron saint – the Virgin Mary.

The origins of this institution of fighting monks lay in a hospital order established during the siege of Acre in 1190, to cater for German-speaking crusaders. Eight years later the brothers of the hospital were reincorporated as a military order by Pope Celestine, taking vows of poverty, chastity and obedience. Like their model the Templars, the Teutonic Knights developed a reputation as an effective, disciplined military force committed to the defence of Christendom. Initially petitioned to defend the eastern border of the Kingdom of Hungary against nomadic pagan Cumans in 1211, just over a decade later the Teutonic Order was invited by the Duke of Masovia to stabilise the northern frontier of his Polish domain. The Prussian Crusade that followed (in fact consisting of a series of crusades), resulted in the creation of a theocratic state in former Prussian tribal lands dominated by the Order, secured with castles, several of which were built from red brick. This was accompanied by the introduction of Christianity and a protracted process of colonisation. The Order's annexation of neighbouring Catholic Pomerania (eastern Pomerania) in 1309 expanded its state but ultimately led to conflict with the Kingdom of Poland. This was finally resolved on the battlefield at Tannenberg (Polish Grunwald; Lithuanian Žalgiris) on 15 July 1410, where most of the Order's leadership, including the Grand Master, were killed, after which its Prussian state slowly but assuredly declined. In 1525, the last Grand Master converted to Lutheranism and what remained of his territory in East Prussia became a duchy dependent on Poland. Although the region would experience further turmoil in later centuries, culminating in the years of the Second World War, several of its iconic red brick castles have survived and are now centres of burgeoning and increasingly international tourism (Figure 1.3). They remain the most vivid reminder in the south-eastern Baltic of a formative epoch in the shaping of European society.

In recent decades, the body of scholarly literature on the Baltic or Northern Crusades has steadily increased (see below). The Teutonic Order's crusades and state in Prussia have been studied intensively by German and Polish scholars, primarily concerned with the Order's military and political history, its bureaucracy and organisation. The number of scholarly papers and books in English has also begun to increase in the last two decades, building on the foundations of William Urban's *The Prussian Crusade* (2000; originally published in 1980) and Eric Christiansen's *The Northern Crusades* (1997; originally published in 1980). Moreover crusading in Prussia, and the rest of the eastern Baltic, is studied within the context of 'Europeanisation' – the expansion of medieval Christian Europe (Bartlett, 1994). In Prussia, the process has been frequently referred to as 'Germanisation', a continuation of *Ostsiedlung* or *Drang nach Osten*: the eastward



(a)



(b)

FIGURE 1.3 The castle at Gniez (Mewe) (a) and the ruins of the castle at Dzierżon (Christburg) as drawn by Hartknoch in 1684 (b)

expansion of German-speaking populations during the twelfth and thirteenth centuries (Labuda, 1964; see also chapter 3). The Order's state certainly had a distinct ethnic dimension: the Teutonic Knights largely recruited from the German-speaking lands of the eastern Holy Roman Empire, and the majority of the peasant colonists invited to settle the Prussian interior was German. But nationalist sentiment in the early-twentieth century readily linked this multi-faceted process of medieval colonisation with a long-term agenda of territorial expansion, culminating in the Nazi invasion of Poland in 1939, an association that continues to colour popular perceptions of the crusading period in Prussia (see also chapter 8). In post-war Poland, the Teutonic Order became synonymous with German militarism and expansion (Von Güttner Sporzyński, 2008, p. 13). In fact, there is no evidence for a 'German agenda' of colonisation. Instead, the region is considered by modern historians as a frontier: a meeting point and crucible of contrasting social and economic systems, languages, religions and political agendas. Both hostility and collaboration defined the transformation of eastern Baltic societies into medieval states emulating in many ways the structures of the Holy Roman Empire (Jensen, 2001). Given this monumental corpus of scholarship, with its own fascinating historiography, it is not surprising that our understanding of medieval Prussia, and indeed the other crusading frontiers, remains dominated by studies of historical sources.

Archaeologists, in turn, have been excavating sites associated with both the Prussian tribes and the Teutonic Order for over a century. However, the discipline has been sub-divided into the early and late Middle Ages, and it is unusual to see synthetic studies encompassing the centuries before and after the Prussian Crusade, although the relationship between castles and earlier strongholds has always attracted the attention of excavators. Indeed, the most visible representations of late-medieval archaeology in Prussia focus on the Order's spectacular castles and towns (the former also accounts for the only synthetic work in English; Turnbull, 2003) whilst more detailed reports, syntheses and discussions remain scattered throughout specialist periodicals and regional journals. Moreover, the shifting political geography of the south-eastern Baltic has split the former territories of the Teutonic Order between three countries, representing a formidable obstacle to scholarly communication and collaboration (Figure 1.4). These difficulties are exaggerated even more for those seeking a broader understanding of the Baltic region, particularly when comparing Prussia, Livonia, Lithuania and the Russian principalities beyond. The most extensive work on the archaeology of medieval Prussia has been conducted in Poland, which encompasses a significant proportion of the Order's former state. This time period is defined by Polish scholars as the transition from the early to late Middle Ages, although in Latvia and Estonia the same process is used to mark the end of the Iron Age and the start of the medieval period. The territories of the Teutonic Order extended to the northern tip of the Curonian Lagoon, although the castle at Memel (Klaipėda) and its commandery were administered by the Order's Livonian branch until 1328 when the castle and much of its district became incorporated into Prussia.



FIGURE 1.4 The south-eastern Baltic region today

On ecclesiastical matters, the Memel region answered to the bishops of Courland and was the location of their residence until the start of the fourteenth century, although in the twentieth century it belonged briefly to the diocese of Ermland (Warmia) (Rowell, 1999, p. 195). From this point, the crusader states of Prussia and Livonia would be separated by Samogitia (Lithuanian *Žemaitija*). Today, western Lithuania (Klaipėda County or Lithuania minor) encompasses parts of the former tribal territories of Courland, Scalovia and eastern Sudovia, which were replaced by the commanderies of Memel and the northern fragment of Ragnit. Lithuania minor has also seen over a century of archaeological research, particularly focused on the Late Iron Age culture, as well as the castle and part of the Old Town at Klaipėda. The distinction made in this book between the Order's state in Prussia and Livonia is, on one level, somewhat artificial (see also chapter 9). Both regions were closely connected, although the Livonian branch of the Order acted interdependently and its relations with the indigenous population were different. The Memelland's cultural sphere overlapped with Courland and Samogitia, whilst for merchants and crusaders alike it was easier to reach by sea than by land from Sambia. It is included here as the north-western frontier of the Order's Prussian territories and provides an instructive case study for comparison with the heartland of western Prussia.

Sandwiched between north-east Poland and western Lithuania is the Kaliningrad Oblast, the geographically separated, western-most district of the Russian Federation. Ermland and the Duchy of Prussia had been amalgamated as the province of East Prussia or *Ostpreußen* in 1772–1773. Its borders remained more or less intact until 1919 when the Treaty of Versailles separated it from the Memelland, which four years later became an autonomous region within the Republic of Lithuania. In 1945, East Prussia was sub-divided between Poland and the Soviet Union, with Poland gaining around two-thirds of this

territory. The Russian portion encompassed the tribal territories of Sambia, Nadruvia and part of Scalovia, which had been replaced by the Teutonic Order's commanderies of Königsberg, Ragnit, Brandenburg and Balga, as well as the territories of the Sambian bishops (Figure 1.5). The incorporation of this region into the Soviet Union following the Second World War saw a programme of resettlement with a pronounced anti-German/pro-Slav policy, effectively rebranding the entire province. In 1945, the surviving German population was expelled and a year later the first wave of Russian, Ukrainian and Belarussian settlers arrived, followed later by Lithuanians, resulting in the reduction of the modern German population to less than 1 per cent (Krickus, 2002, pp. 40–41). Whilst Prussian and medieval sites have been excavated here, publications and especially grey literature are relatively difficult to access. This is beginning to change and there is in fact an extensive body of literature on the archaeology of early Sambia in Russian and German (for a good bibliography of the latter see Wendt, 2011). Vladimir Kulakov, Alexander Khokhlov and Anatoly Valuev have been leading various projects in recent years focusing on the former castle area in Kaliningrad, including the Prussia Museum, in the Old Town and across the region through to the coast.

The political and military significance of the Oblast had limited the possibilities of international collaboration in the second half of the twentieth century,

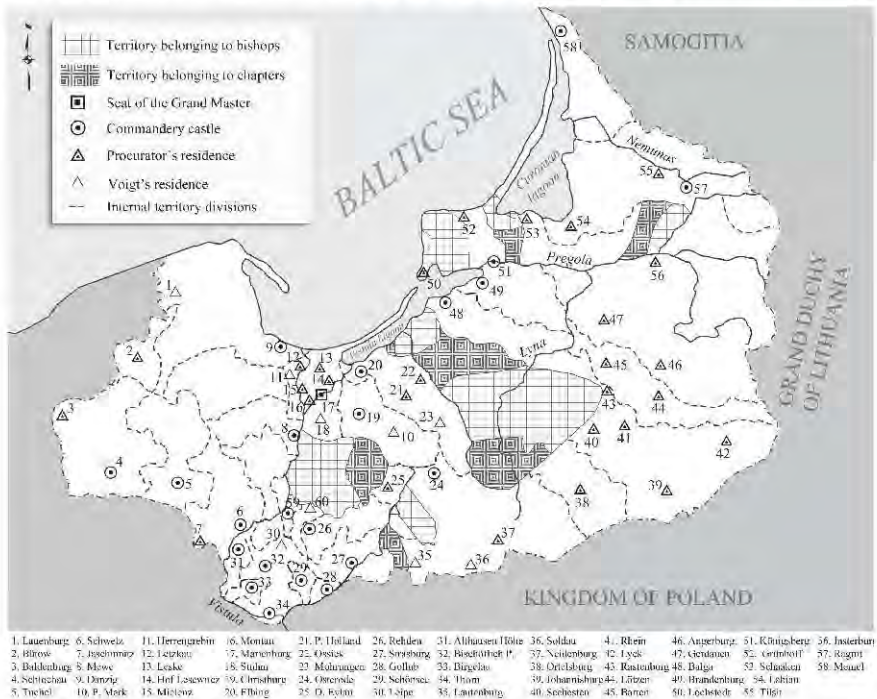


FIGURE 1.5 The commanderies and episcopal domains within the Teutonic Order's state at the start of the fifteenth century (redrawn aft. Biskup *et al.*, 2009). Engelsberg (Pokrzywno) was a commandery centre until 1416

although this situation has recently changed. In 2001, the German magazine *Der Spiegel* funded Russian-led excavations at the former castle in Kaliningrad. In 2003, a German–Russian team excavated a mid-first- to eleventh-century AD cemetery at Berezovka and also re-examined finds from earlier excavations at the site, whilst three years later a Viking Age settlement and cemetery at Wiskiauten (also referred to as Kaup and in the vicinity of Mokhovoye) on the northern Sambian coast was the focus of an excavation programme by a joint Russian and German team, deservedly hailed as a landmark in ‘building bridges’ (Streier, 2008). These excavations led by Vladimir Kulakov (2005) and Timo Ibsen (2005) have significantly contributed to our understanding of Prussian Sambia and its Baltic, particularly Scandinavian, contacts. Although much of the collection and archives of the Prussia Museum in Königsberg were destroyed during the Second World War, along with virtually the entire city, some material was recovered, and some had been dispersed to museums in Berlin, Olsztyn, Warsaw and Tallinn. From 2006, Polish, German and Russian archaeologists collaborated on conserving and studying the fragmentary archives (Bitner-Wróblewska, 2008). Artefacts from the old museum were also recovered in a nearby fort and discovered in the stores of the *Museum für Vor- und Frühgeschichte* in Berlin. Work continues on publishing restored archival data. The limited publications on the archaeology of medieval Sambia have restricted an integrated perspective of the Order’s state, whilst a commercial market for illicit antiquities such as coins has developed not only in the Kaliningrad region, but also in Poland (Paszkievicz, 2009, pp. 130–131).

Similar problems of mutually negative perceptions arising from nationalist sentiment had plagued both German and Polish perceptions of the Teutonic Order’s state, especially in secondary education. The first German–Polish joint venture in heritage management was initiated from 1999, when the Museum of western Prussia (*Westpreußische Landesmuseum*) in Drostenhof (Münster-Wolbeck) collaborated with the Regional Museum in Puck (*Muzeum Ziemi Puckiej*) alongside other institutions, most recently the National Museum in Gdańsk, to open the Regional Museum in Krokowa focusing on the Kashubian culture in Pomerania. In 2008, the EU’s North Sea Region Programme (INTERREG IVb) facilitated the proposal of the construction of an open-air museum in the Kaliningrad Oblast based on the complex at Wiskiauten, building on an international living history festival begun two years earlier. From 2006, ‘The Lithuania, Poland and Kaliningrad Region of the Russian Federation Neighbourhood Programme’, co-financed by the European Regional Development Fund and the EU’s technical assistance programme, has sought to foster cross-border research collaborations and networks between Kalipėda County in Lithuania and the Kaliningrad region, with historical studies as one of its key priorities. The future of international collaboration on research into historic and prehistoric Prussia looks bright, if only darkened by widespread reductions in public sources of funding.

This book, the first of its kind, seeks to fill an important gap by providing a synthesis of archaeological work on medieval Prussia, aimed at increasing public and scholarly awareness and interest, and complementing the growing number of books and papers in English written by historians. It is not intended as a comprehensive gazetteer; such a task awaits far more experienced scholars and there are already plenty of catalogues of castles. Instead, it aims to situate the material culture of crusader-era Prussia within the broader context of medieval archaeology, making the sites, artefacts and landscapes more accessible to an international audience and seeking to stimulate new, inter-disciplinary research questions. It picks up where Maria Gimbutas' (1963) synthesis of Baltic prehistory ended, and does not limit itself to the period of active crusading in Prussia – 1230–1283 – but extends to the state created by the Teutonic Order which lasted into the early-sixteenth century. Geographically this encompassed Christian territories in the Kulmerland and Pomerania, as well as Prussian tribal territories, which collectively came to be known as Prussia. In this respect, this book also offers a new definition of the material culture of the Teutonic Order's state. The castles and towns established by the Order have become some of the most popular tourist attractions in Baltic Europe, and their reconstruction and presentation to the public as historical heritage is just as important as their foundation. The second half of the final chapter of this book is concerned with how revived memories of the Prussian Crusade and the dominion of the Teutonic Order have been attached to specific monuments and landscapes, particularly within the context of modern Polish culture. The rest of this introductory chapter will provide a historical context for the material presented in this book, by outlining the events leading up to and encompassing the Prussian Crusade, and the establishment of the *Ordensstaat* – the Teutonic Order's state.

For the sake of clarity and largely as a reflection of the historiography, place names in each chapter referring to information from written sources are rendered in German with Polish, Russian and Lithuanian equivalents in brackets after the first usage. All names associated with archaeological sites are rendered into the form used in related literature (typically the modern Polish name), with German equivalents where a historical identity is clear. For example, the name Elbląg will be used when referring to excavations in the modern Polish town, whereas all other mentions will use the German Elbing. The reason for this is that archaeological sites are referenced according to modern geography, and in this way it will be easier for readers to track down the relevant publications and reports. Rather than causing confusion, it is hoped that readers will become comfortable with interchanging these names which is standard practice amongst archaeologists, historians and heritage managers in the eastern Baltic region. Personal names will be anglicised whenever possible for the sake of consistency (see the terminology and glossary).

Historical framework

Holy war in the Baltic from the twelfth century

In 1108 a document co-authored by the Archbishop of Magdeburg and various bishops, clerics and their supporters called for a war against the pagan West Slavs, perceived as threatening the archdiocese of Magdeburg and endangering the survival of Christianity (Constable, 2008, pp. 197–214). The term ‘pagan’ was a derogatory Christian word used to refer to non-Christians. The archbishop warned of pagans filling chalices with the blood of Christians in honour of their god Pripegala, but then went on to state how their land was plentiful in natural resources, creating an added incentive for a Christian offensive. The proposed war explicitly combined spiritual purification with territorial conquest, but nothing would come of it (Trupinda, 1999, p. 127). The first official crusade against pagans in the southern Baltic was sanctioned in 1147. Bernard of Clairvaux, raising support for the pope’s call for a second crusade to the Holy Land, met German knights in Frankfurt who instead of heading for the Near East, expressed a desire to campaign against the pagan Wends: in this particular case the name referred to a Slavic group occupying the region east of the River Elbe. Bernard agreed and subsequently persuaded Pope Eugenius III to authorise this first Baltic Crusade (Fonnesberg-Schmidt, 2007, pp. 30–31). However, unlike the crusades in the Holy Land, conceptualised as defensive wars aimed at protecting Christians, Bernard defined the objective of the Wendish Crusade as the conversion of Slavic pagans to Christianity. Although there was no papal interest in conversion at this time and the crusading enterprise failed, it set a precedent for papally sanctioned wars against pagan societies in the Baltic, one which local Christian princes keen on extending their domains would exploit. The crusading ethos was certainly twinned with the political interests of Polish and Danish rulers in the twelfth century (Trupinda, 1999, p. 64; Kala, 2001, pp. 9–10). For example, Bolesław III’s military expeditions against the Pomeranians in 1109, Bolesław IV’s campaigns in Prussia in 1147 and 1166 and Casimir I’s wars against the Sudovians in 1191–1192 were all portrayed as crusading engagements in early Polish narrative sources such as the *Gesta Principum Polonorum* and the *Chronicon Polonorum* (Von Güttner Sporzyński, 2008, p. 14), even if they were not officially sanctioned as such by the papacy (Śliwiński, 2004, p. 53). These wars were unsuccessful and were met with Prussian aggression in the borderlands of Masovia, the Kulmerland and Pomerania.

The growing missionary impulse at the fringes of pagan territories in the Baltic culminated in a full-blown Prussian mission headed by the Cistercian monk Christian, who was appointed Bishop of Prussia in 1215. The increasing involvement of the papacy in attempts to Christianise Prussia sought to overrule the territorial ambitions of Polish magnates (*ibid.*, p. 58). The newly established Prussian Church, focused on the Kulmerland and neighbouring border regions, soon floundered due to tribal aggression and poor recruitment. As in Livonia, Pope Honorius III sanctioned crusades in defence of Bishop Christian and his

converts, adding in a letter addressed to crusaders in 1218 to strive for the conversion of pagans, but not force them into servitude (Fonnesberg-Schmidt, 2007, p. 138). The crusading call was answered by, amongst others, Knights from Silesia and the major confrontations with the Prussians took place on the border between the Kulmerland and Pomesania. Indeed, one of the main aims of the expedition was to bolster the military defence of the Kulmerland and the result was that Bishop Christian aligned his involvement with Polish interests (Jasiński, 1976). This was followed by another crusade in 1222–1223 and, from 1216–1230, Prussian reprisals followed these incursions, including an assault on Pomerania that destroyed the Cistercian monastery at Oliwa and the Norbertine convent in Żuków. In fact, this last event was related to the feud between the Polish and Pomeranian dukes stifling support for missionary activity into Prussia. This set the scene for Bishop Christian's eventual replacement by the Teutonic Order (Śliwiński, 2004, p. 62).

The historical events of the Prussian Crusade led by the Teutonic Order are well known (e.g. Urban, 2000; Labuda & Biskup, 1986; and in more analytical detail, Powierski, 2001), and will only be summarised here. They are largely based on the description of events in the *Chronicon Terrae Prussiae* (*The Chronicle of the Prussian Lands*) written by a priest of the Teutonic Order, Peter of Dusburg. Incorporating earlier anonymous texts dating from the early- to mid-thirteenth century (Trupinda, 1999, pp. 65–77), Peter completed his text in Latin in 1326, almost half a century after the crusades against the Prussian tribes had come to an end (Wyszomirski & Wenta, 2004). This was subsequently translated into German and expanded by a chaplain of the Order, Nicolaus of Jeroschin, in the 1330s. Although until very recently dismissed by critics, Jeroschin's work was at the time far more influential than Peter's *Chronicle* (Fischer, 2010, p. 6). In the fourteenth century, the documentation of historical events increased, but was dramatically detailed in two major narratives: a Latin translation of Wigand of Marburg's account describing the activities of the Order from 1311–1394, and the annals of Jan Długosz which included the wars between the Teutonic Order and Poland-Lithuania in the fifteenth century (see section on written sources below).

The Teutonic Order in Prussia

The involvement of the Teutonic Order in Prussia is largely due to Duke Konrad I of Masovia (and Kuyavia), the son of the Polish king, Casimir. A combination of factors – civil war in Poland, Prussian raids on the Kulmerland and ambitions for continuing territorial expansion – prompted Konrad to invite the Order to crusade in Prussia. Bishop Christian had sought to protect his mission in the Kulmerland by forming a local military order with Duke Konrad, the *Fratres Milites Christi*, who presented the Knights with the town of Dobrin (Dobrzyń) and associated territories, situated on the Vistula (Wisła) just south of Prussian lands. The knights' remit in fact extended to defence

against all Prussians and Rus' 'heretics' (Białuński, 1999, p. 87), but their small number limited their effectiveness and the Knights of Dobrin would ultimately become absorbed into the Teutonic Order in 1226. The Order was invited to stabilise this frontier in return for territory within the Kulmerland. This region had been part of the early Polish Piast state and subsequently the Kuyavian-Masovian Province, with Prussian settlements only to be found in its eastern side. However, in the early-thirteenth century it was increasingly the target of Prussian raids which even led to its brief occupation (Ślaski, 1970). Konrad's invitation came at a time when remnants of the Order were leaving Transylvania after being ejected by the Hungarian King Andrew II.

Hermann of Salza, the Grand Master, was cautious and approached the Holy Roman Emperor for support. In March 1226, Emperor Frederick II, in keeping with his general support of the Order, issued the Teutonic Knights with the Golden Bull of Rimini (so-called because of the large gold seal attached to the document), which authorised the invasion of Prussia, conferred land offered by Duke Konrad and all land subsequently conquered in Prussia to the Order, along with the rights to govern it. Konrad, in turn, presented the Knights with the Kulmerland and the village of Orłowo in Kuyavia in 1228. Despite Bishop Christian's earlier claims to land in Prussia, especially around Kulm (Chełmno), the Golden Bull effectively made the Order free from any episcopal authority. When the activities of the Teutonic Order were debated and contested two centuries later, it was finally decided that the original intention of the Holy Roman Emperor had been to create an independent and permanent state for the Knights, which was to be a vassal (Urban, 2000, p. 98). The Grand Master had even been allowed to display the imperial eagle on his banner. But at the same time the direct superior of the Order was the pope, and Prussia was ultimately held by the Knights as a papal fief.

In the spring of 1228, a small contingent of Teutonic Knights – the rest were taking part in Frederick II's crusade in the Holy Land – arrived at the Masovian frontier. The Knights encamped on the south bank of the Vistula where Duke Konrad had built a small castle, Vogelsang, on a hill to serve as a base for military incursions into Prussia. The Teutonic Knights began to raid the occupied Kulmerland, gathering information about the landscape and its inhabitants in the process. In 1230, the Vogelsang garrison was reinforced and, under the direction of Herman Balke, work began to extend the fortifications downhill by the river, creating a secure harbour to enable supplies to be shipped in for a protracted campaign. In July, the pope confirmed the Teutonic Order's right to possess any conquered territories in the region and, later that year, papal letters in response to the Order's requests sanctioned crusades against the Prussians with a full indulgence. The offer of an indulgence on par with that offered for crusading in the Holy Land raised the profile of Prussia as a centre for crusading and boosted recruitment. Subsequent authorisations of crusade – in response to pagan aggression – stressed the leading role of the Order (Fonnesberg-Schmidt, 2007, p. 193).

The First Crusade into Prussia aimed to recruit from the surrounding Christian territories: Madgeburg, Hamburg-Bremen, Poland, Pomerania, Moravia, Suravia, Holstein and Gotland, later extending to Bohemia and other regions of northern and eastern Europe. Income received from the redemption of vows and donations was channelled to the Teutonic Order; in this way the pope enabled the Order to become the prevalent force in the Prussian mission. The conclusion of a civil war in Poland enabled the Polish dukes to join the Crusade. The attacks began across the Vistula in a merciless war that spared only Christians, those who would convert, recognise the authority of the bishop and the Order, and pay taxes. In 1231, the Order managed to build a castle on the other side of the river across from Vogelsang – at Thorn (Toruń). The political situation in the Kulmerland was already complicated by a mosaic of pagans and Christians, and the early military successes of the crusading force prompted local nobles to surrender their lands, accept them back as fiefs and join the Christian army. Infighting and a lack of regional solidarity prevented the Prussian tribes from uniting together against the crusaders. The progress of the crusading army was systematic and unstoppable and, by 1232, most of the Kulmerland was occupied.

Consolidating the early crusade

Castle building began in earnest, first at Kulm itself, replacing a fortification that had been constructed by Bishop Christian and subsequently destroyed, and then further north at Marienwerder (Kwidzyn). From here the crusading army launched offensives into the neighbouring Prussian regions of Pomesania and Pogesania. After the army dispersed having fulfilled its crusading obligations, the Order was unable to follow up its military victories, but remained in western Prussia to secure its conquered territories. The greatest of these victories had been the battle at River Sirgune (River Dzierżgoń) where, according to Peter of Dusburg, over 5,000 Prussians had been killed. Consolidating its position in the Kulmerland, the Order invited German and Polish peasants and knights to colonise its territories; the majority who came were from the Empire. This process saw the Order issue its first foundation charter, granted to the town of Kulm in 1233 (see also chapter 5). Influenced by imperial town charters, this document would form the blueprint for settlements within the entire region. It established a set of rights and liberties, outlining in some detail the privileges of the Order as sovereign rulers. The local Prussian population became serfs, required to perform manual labour for their new lords, such as heavy agricultural work and the construction of fortifications.

Local resistance predictably stiffened. In 1234, the Warmians attacked and burned the convent of Oliwa in neighbouring Pomerania, and Bishop Christian was kidnapped and held hostage. As a result of this, the pope (and his legate, William of Modena) endorsed the Order's control of the conquered territories. Another crusade was launched two years later focusing on the Ossa

(Osa) river valley, targeting the strongholds of the Pogesanian tribe which were being used as bases to raid Kulm. Led by Count Henry of Meissen the crusaders sailed down the River Nogat, then up the River Elbing (Elbląg) to an island where they constructed an earth and timber castle. Consolidation of this key strategic point was followed by the building of further castles in Balga (Veseloe) and Schinckenberg. The garrison of Balga was reinforced by Duke Otto of Welf, who arrived by sea with his retinue, indulged in hunting, repelled Prussian attacks on the castle and left behind significant supplies for the Teutonic Knights. The Order requested papal support in the 1240s and 1250s, resulting in the declaration of further crusades against pagan Prussians, with the defence of converts remaining the main justification. These crusades were accompanied by the construction of castles northwards into Sambia and eastwards towards Nadruvia and Sudovia. In the late 1230s, the civil war in Catholic Pomerania between Duke Sventopelk and his brother Sambor resulted in the garrisons allied to the former raiding traffic on the Vistula and disrupting the Order's shipping. Fearing a combined attack from the Order and the Polish dukes, Sventopelk accepted an alliance with the pagan Prussians and, in 1242, promptly overran much of Warmia, Natangia and Barta, and subsequently captured Marienwerder. The Prussian Insurrection and Pomeranian war with the Order would continue for several more years, and a final peace (the Treaty of Christburg) would not be arranged until 1249. In this treaty the Order swore to give all converts complete personal freedom in exchange for their obedience; the Prussians, in turn, had to cease a range of pagan practices, as well as sentencing criminals to slavery and delaying baptism (Urban, 2000, pp. 210–211). Duke Sventopelk made one last attempt to fight the Order which ended in a further peace treaty in 1253.

The Order's activities in Prussia had gained significant momentum by the mid-thirteenth century. In 1245, Pope Innocent IV granted the Order the right to recruit crusaders at its discretion (i.e. 'without public preaching'), although this was almost certainly limited to the crusade in Prussia (Ehlers, 2001, p. 29). In later decades, the Order would gain increasingly complete control over the timing and recruitment of its crusades; by 1260 the Order's own clerics were allowed to preach its crusades. A further rebellion in 1260 (the Great Prussian Uprising) prompted further crusades resulting in the complete subjugation of Prussia by 1283. Easternmost Sudovia became sub-divided between the Order and Lithuania, frustrating Polish efforts at political expansion which had been underpinned by a series of attacks on the region from 1264–1282 (Białunski, 1999, p. 119). The military successes of the Teutonic Order in Prussia can be attributed to superior equipment, particularly the use of heavy war horses and crossbows (Ekdahl, 1998), effective discipline and ultimately their reputation on the battlefield (Urban, 2000, pp. 142–143). In 1246, the Grand Master Henryk of Hohenlohe initiated reforms of the administrative structure of the Order in Prussia, establishing the system of commanderies which would last into the sixteenth century. Prussia had been claimed as papal

territory by Gregory IX, to be administered by the Teutonic Knights who set up their own state and infrastructure referred to as the *Ordensstaat* (Löwener, 2000, p. 17). The state was fully controlled and administered by the Order from its headquarters in Marienburg (Malbork), established in 1309, although the estimated number of knights in Prussia was only around 700 (Urban, 2000, p. 151). Colonisation increasingly shadowed the military outposts of the crusading hosts. Incoming settlers included small numbers of German vassals and merchants, Polish knights in Kulm holding fiefs from the lands belonging to the Bishop of Kuyavia (who had held them there before the crusades had begun). The knights had extensive rights to timber, honey as well as improvements to their land, although the Order could requisition the fief to build a castle, in exchange for another. An elaborate administrative structure developed to cope with the growing demands of running the Order's territories in Prussia, and elsewhere. Peter of Dusburg's account suggests the indigenous population must have suffered extensively; survivors of the wars against the Order were relocated to villages and obliged to work in intensive agriculture, even though many crops had been destroyed. Most women and children were sent away from villages with no plans for their support, whilst young boys were taken as hostages to Germany for re-education as Christians (ibid., p. 171).

The conquest of Sambia and the Great Prussian Uprising

Shortly after stabilising their western border with Pomerania, the Order turned its attention east, to the Prussian tribal region of Natangia. After an unsuccessful raid and surrender at Krücken, which saw the crusading host killed or executed in religious ceremonies, it would be another two years before a successful invasion secured the region militarily. In 1252, after the Duke of Lithuania had converted to Christianity in order to consolidate his position, the Livonian Order had constructed a castle at Memel, providing a base to attack Sambia from the north. Most of the assaults then came from the south and, in 1254, the knights of the Livonian Order launched a failed attack through the dense woods near the River Memel. That winter, the largest crusading army to enter Prussian lands, which included forces from Bohemia and Brandenburg, joined the Order in an extended assault on Sambia. The crusade lasted a few days, and Peter of Dusburg notes that the surviving Sambians offered hostages and accepted baptism. The Bohemian king Ottokar II sponsored the building of a fortification overlooking the River Pregel (Pregolya) which ran from Lithuanian territory, named Königsberg (Kaliningrad). By the summer of 1255 this had become a fortified convent with an associated settlement and would eventually represent the most important castle of the Order after Marienburg.

The Sambian nobility who had sworn loyalty to the Order had their lands and privileges confirmed, serving under the same conditions as immigrant German knights (ibid., p. 277). This enabled the Order to begin military incursions into pagan Samogitia from both its northern and southern borders. Samogitia

was ethnically and politically (especially after 1252) associated with Lithuania, rather than the Prussian tribal lands. In 1257–1259, a truce was arranged enabling Livonian and Prussian merchants to travel throughout Samogitia, and pagan Samogitians to travel freely in the domains of the Order. But, when the truce expired, the Samogitians, inspired by the resistance of the Sudovians against the crusades of the Prince of Galicia and the Duke of Masovia, attacked Courland in southern Livonia, prompting uprisings amongst the indigenous Semigallians, Curonians and ultimately the Lithuanians.

At this time the Prussian tribes were organising a unified uprising which took place in September 1260, led by Henry Monte, the son of a Natangian noble. During the crusading campaign of 1240, Monte, along with other Prussian nobles, had been captured and taken back to Magdeburg for re-education. In the early 1250s, he had gained considerable military experience fighting alongside the Order against the eastern Prussian tribes. This experience and understanding of the Order's methods and mentality would enable him to mount an effective challenge against garrisons and the crusading forces responding to the rebellion (Urban, 1978). The uprising in Sambia, Natangia, Barta and Warmia was marked by the slaughter of priests, merchants, German colonists and native Prussians thought loyal to the Order. Subsequently, Prussian guerrilla warfare tactics inflicted heavy losses on the crusading hosts and the Order's garrisons – the Count of Barby's army was virtually annihilated by the Sambians. The insurrection spread into western Prussia as the pope called for a new crusade. A crusading army arrived from the Rhineland and made its way to Königsberg. Although initially successful at defeating Sambian forces, as soon as the crusaders returned home, the Sambians renewed their siege of the castle. Königsberg held out, some garrisons from other castles such as Bartenstein (Bartoszyce) were able to escape, whilst most of the garrison of Kreuzburg (Slavskoye) was killed. Castles continued to resist attacks but most fell, with Bartenstein holding out into 1264. In 1262, the Sudovians invaded Masovia, which was effectively leaderless after the recent assassination of its duke. The Lithuanians joined in attacking eastern Poland and western Prussia, with the attacks reaching Kuyavia and Kulm. During a battle against the Natangians, the Master of Prussia, the Marshal of the Order and his most experienced knights were killed. The attacks on Kulm intensified, as a vast Lithuanian army entered Masovia, Pogesania and even Kulm itself. The war had reached the heartland of the Order's territories and it seemed as though the relentless progress of the Prussian Crusade had faltered.

Despite losses such as Marienwerder, the Order's surviving garrisons were able to hold out. In Sambia, the castle at Königsberg remained a base for launching raids, holding back the Sambians and enabling more castles to be constructed. In 1265 and the following year, large crusading armies from Germany arrived in Prussia. By this time Polish involvement in the Prussian Crusade was significantly diminishing, and the Order came to rely on military aid from the Empire; in this respect the Crusade was becoming a distinctly German enterprise (Urban,

2000, p. 269). In the west, the border with Pomerania had been stabilised for barely a decade when Mestwin and his brother, the sons of Duke Sventopelk, followed in their father's footsteps and declared war on the Order amidst the latter years of the Prussian insurrection. In 1267, King Ottokar of Bohemia returned to Prussia with a vast crusading force, having been promised the lands of Sudovia and Galindia which did not already belong to the Order. He forced Mestwin, the rebellious son and successor of Duke Sventopelk, to make peace with the Teutonic Knights but, by then, the ice was thawing and it became virtually impossible to launch military expeditions through Prussia.

In the 1270s, the Order launched small-scale raids from its castles along the Rivers Vistula and Pregel (Pregolya) and across the northern coast. Pogesania remained the most contested region and, in 1271, the Bartians embarked on a military incursion to break the Order's hold on the region but were repelled by the garrisons at Christburg and Elbing. Shortly after, a large force of Sudovians and Lithuanians marched on Kulm but failed to penetrate the town's defences, and the Bartian leader was killed after trying to storm the Order's outpost near Schönsee (Kowalewo Pomorskie), which prompted his army to disperse. The following winter, refreshed by German reinforcements, the crusading armies converged on Natangia, assaulted Henry Monte's main fortress and laid the region to waste. Monte and the last tribal leader of the Warmians were captured soon after and executed. The fighting was reduced to the wetlands and woods of Pogesania, where the remnants of the Prussian insurrection had gathered. In 1274, the Order finally cornered its pagan opponents at Heilsberg and rebuilt their castles on the frontier with Sudovia. The survivors of the war were enserfed, except for those who had remained loyal vassals. The last decade of the Crusade was focused on conquering Nadruvia and Sudovia; the majority of the population surrendered and a minority resettled in Lithuania. A third insurrection in 1277 was comparatively minor and resulted in the Order entering Pogesania and resettling a significant proportion of the population, whilst survivors fled to Samogitia. After almost half a century, the ongoing Prussian Crusade was over in 1283 with the complete subjugation of tribal lands up to Lithuania and Samogitia. The Order intended to extend its territory across Samogitia and link its Prussian lands with those in Livonia. However, due to the absence of the sorts of coalitions which had made the Prussian Crusade possible in the first place, the war against the Samogitians would last into the fifteenth century.

The war in Pomerania and the annexation of Gdańsk (Danzig)

The Crusade against Prussia promoted political and economic stability in Poland, creating a sense of Polish national identity and ultimately a unified kingdom after almost a century of internal fragmentation. At this point Poland became a potentially dangerous foe for the Teutonic Order. In the late 1260s, Duke Mestwin of Pomerania became the vassal of the Brandenburg dukes and not long after, in 1271, a quarrel resulted in the almost total conquest of the duchy and

the confirmation of their status as lords of Pomerania. A decade later Mestwin willed his lands to his Polish relatives but, in 1306, opposition to the Polish King Ladislas (Władysław I Łokietek) within Pomerania prompted the Brandenburg dukes and rebel Pomeranians to occupy most of the region, with only the citadel at Gdańsk holding out and remaining loyal. Ladislas advised the citadel commander to seek aid from the Teutonic Order. The Order obliged and drove the armies of Brandenburg out of the town and expelled them from Pomerania. The Knights then presented the bill of 10,000 marks to Ladislas, who refused to pay. In response, the Order decided to retain Pomerania and the Brandenburg dukes promptly sold their claims of sovereignty over the region to the Teutonic Knights. The annexation of Pomerania became a point of contention between the Kingdom of Poland and the Order, resulting in intermittent hostilities into the fifteenth century. In the same year as it claimed Gdańsk, the Order abandoned its Mediterranean headquarters in Venice and relocated to Marienburg. The loss of the Holy Land with the fall of the last Christian outpost Acre in 1291 had prompted the Order to commit itself to Prussia and Livonia. Many historians see this as the pivotal turning point in the development of the Teutonic Order; a transformation from idealistic crusaders into territorial landlords (*ibid.*, p. 377). However, from the perspective of thousands of European knights hosted by the Order, the ongoing crusades against Baltic pagans would continue throughout much of the next century, specifically targeting Lithuanian territory.

The Ordensstaat and the 'eternal crusade' against Lithuania in the fourteenth century

Within the Teutonic Order's expanded state in former Prussian tribal lands, the fourteenth century was characterised by a process of colonisation, urban expansion and the elaboration of the Order's administrative structure. The fall of the Imperial Hohenstaufen and the Bohemian Premysl dynasties meant that the Teutonic Order had lost its main supporters in central Europe, whilst hostilities with Poland and the translocation of the Papal Curia to Avignon in 1305 meant that the Order had to increasingly rely on its own resources in Prussia (*ibid.*, p. 294). This consolidation is exemplified by the expansion of the great castle at Marienburg, which virtually tripled in size by the later decades of the fourteenth century (see also chapter 4). The Order's western and northern commanderies developed extensive networks managing internal provisioning and the export of grain and timber, whilst the eastern border with Lithuania remained a depopulated, militarised zone for much of this time (see also chapter 7). From 1304, the Order organised *Reisen* or military expeditions into Lithuanian territory for the European crusading aristocracy (Paravicini, 1989). The *Reisen* presented young, male aristocrats with the opportunity to prove themselves in front of their peers, within an established tradition of crusading as an expression of noble piety. These expeditions were fully embedded in contemporary chivalric culture, accompanied as they were by an

elaborate sequence of knightly ceremonies including dubbing, banquets, hunts and lavish entertainment which has somewhat discredited them in the eyes of scholars making comparisons with the earlier Prussian Crusades (Maschke, 1968; Ehlers, 2001, pp. 23–24). However, the spiritual dimension of crusading as a penitential war remained an important motivator for some knights undertaking the long and expensive journey to the castles of the Order in Prussia. Contemporary chroniclers referred to those fighting alongside the Order against Lithuanian pagans as *peregrini* or ‘pilgrims’ with specifically pious aims, and there is evidence that participants in the *Reisen* could take crusading vows and obtain indulgences. The exact nature of the *Reisen* remains a subject of debate. Nicolaus of Jeroschin did not mention religious justifications for the military campaigns against Lithuania (Fischer, 2007, p. 266), whilst the Order was involved in a complex, interdependent relationship with its enemies in the context of trading agreements and diplomatic contacts. Alliances during this protracted period of hostility were relatively common (Rowell, 1994; Mažeika, 1994). The culture of crusading was very much aligned with the culture of chivalry and, in the fourteenth century, Lithuania represented an appropriate venue for both holy war and the secular ‘beautiful war’ in the minds of contemporaries. The material expressions of this combined ideal of knighthood promoted in the Teutonic Order’s state in the fourteenth century are explored in more detail in chapter 4.

The *Reisen* punctuated a long war of alternating attacks and reprisals, and largely consisted of minor raids across the borderlands, typically in the depth of winter, February and November, and the height of summer, June. Some of the more organised raids targeted strategic locations, such as the fortresses of Welun and Gardinas, but most set out to steal livestock, burn settlements, destroy crops and kill or abduct villagers. The underlying aim was to prevent further Lithuanian attacks on Christian lands; Prussia was now very much an integral part of Christendom. As villages became depopulated through raiding or migration, written sources refer to a belt of wilderness that separated southern Livonia and the eastern Prussian commanderies from Samogitia and Lithuania. It has been possible to document this archaeologically; settlements in southern Sudovia and Semigallia abandoned at the end of the thirteenth century would not be reoccupied until the fifteenth century (Jarockis, 2003). In eastern Prussia this wilderness came to represent an important source of timber for the Order by the fifteenth century but, in the era of *Reisen*, it hindered the conquest of western Lithuanian regions (see also chapter 7).

The Order’s territories in Prussia remained vulnerable to attack throughout this period. In 1311, the Lithuanian Grand Duke Vytenis raided Sambia and Natangia. His army was pursued by the garrison from Königsberg which caught them off guard and decimated them. In the winter of 1311–1312, the Order attacked the fortress of Gardinas with a contingent of Natangian militia. This prompted Lithuanian reprisals targeting coastal settlements and churches in Warmia, although the Order was ultimately able to route Vytenis’ army.

With the appointment of Karl of Trier as Grand Master, attacks focused on Samogitia but once again floundered. Castle building began to focus on the River Nemunas, first at Ragnit (Nemen) then upstream at Christmemel and Welun. Christmemel was immediately besieged but the garrison held out and part of the relief force set out to attack the hinterland of the Samogitian fortress of Welun. In 1361, Grand Prince Algirdas and his brother Kęstutis had led a force into central Prussia which was promptly intercepted by crusading armies from Sambia. The last incursion took place in 1370, when a combined Lithuanian and Russian force invaded Sambia only to be routed by the Order's army. Vytautas, one of Algirdas' sons, converted to Catholicism as a way of securing the Order's support against his brother Jogaila, and was given western Samogitia which had surrendered. This, in turn, pushed the border eastwards and enabled crusading armies to penetrate deeper into the heart of Lithuania. But, in 1384, following a secret arrangement between Vytautas and Jogaila, the Samogitians rebelled and captured the majority of the Order's castles in the region.

The next year, Jogaila signed the Treaty of Krewa (Krewo) which agreed a betrothal with the Polish princess Jadwiga and the official acceptance of Catholic Christianity in Lithuania. In 1386, the grand duke, together with some of his brothers, including Vytautas, underwent a baptism in Cracow, married Jadwiga and became king of Poland and Lithuania, with Jogaila rendered into Polish as Jagiełło. With the new king distracted by the eastern frontiers of his expansive realm where Polish interests were competing with those of Hungary, civil war broke out within Lithuania. Despite Jogaila's baptism, the *Reisen* intensified with more members of the European nobility coming to Prussia than in previous decades. Vytautas allied with the Teutonic Order and in 1390 marched on the capital Vilnius with crusading armies from Prussia and Livonia, as well as an English contingent led by Henry Bolingbroke, the future Henry IV of England. The siege was unsuccessful and was followed four years later by another attempt, this time targeting Vytautas who had switched sides again. This too was unsuccessful and the last years of the fourteenth century saw crusader raids targeting Samogitia. With both Vytautas and Jagiełło pre-occupied with defending their eastern frontiers against Tartars, a peace treaty at Sallinwerder (Salynas) finally surrendered Samogitia to the Order in 1398, although military actions would continue into the first decade of the fifteenth century. Subsequently, German knights joined Lithuanian forces in campaigns against the Tartars and Russians.

The war with Poland and the end of the Ordensstaat

In 1409, there was a rebellion against the Order in Samogitia. The Grand Master, Ulrich of Jungingen, blamed the Polish and Lithuanian princes for supporting the insurrection. After the failure of peace talks instigated by the Holy Roman Emperor, Wenceslas of Bohemia, both sides mobilised for war. The combined Polish and Lithuanian force, which also included Bohemian

and Moravian mercenaries as well as Rus' and Tartar cavalry, Moldavians and Samogitians, invaded Prussia and met the Order's army at a field between Tannenberg and Grunwald, near the River Drwęca (Drewenz). In the ensuing battle the Grand Master was killed, along with at least half his army and most of the highest ranking officials of the Order. Although the battle was not decisive, it heralded the gradual decline of the Order in Prussia and remains to this day a symbol of national ascendancy for both Poland and Lithuania (see also chapter 8). In 2010, exactly 600 years after the battle, the almost frenzied sequence of celebrations, conferences, exhibitions, publications, media coverage and even diplomatic meetings between Polish and Lithuanian ministers clearly testified to the enduring cultural significance of this event.

In the long term, the lack of experienced officials, the breakdown in discipline amongst the ranks of the Order, the financial drain of employing mercenaries to shore up falling recruitment and the loss of suitable targets for crusading in the Baltic resulted in the gradual decline of the Order's Prussian state. In the immediate aftermath of Tannenberg, Jagiełło led his army north to the headquarters of the Order at Marienburg, with castles and towns capitulating in his wake. But thanks to the leadership of the castellan of Schwetz (Świecie), Heinrich of Plauen, the garrison of the great castle was bolstered and on his orders the town and suburbs were destroyed to prevent them from being used by the Polish and Lithuanian army. The garrison held out and after two months the Polish army abandoned the siege, although several smaller castles were captured during that time and large tracts of the countryside were laid to waste. The Polish force retreated to a newly constructed fortification at Stuhm (Sztum) but ultimately withdrew as the Order's troops and allies regained everything that Jagiełło and Vytautas had procured, with the exception of four towns near the border, including Thorn. After the First Peace of Thorn in 1411, there were some minor outbreaks of fighting and, in 1422, the eastern border of Prussia was stabilised after the brief 'Golub War'. This boundary would remain in place until the First World War.

Fresh opposition to the Order took the form of the Prussian League, a confederation of towns and knights within the *Ordensstaat*, formed in 1440 in protest at taxes and limits on civic freedoms. The Order's efforts to break the League ultimately resulted in an Imperial decree ordering the confederation to dissolve itself. In response, the League – now a series of relatively powerful merchant oligarchies in western Prussia – switched its allegiance from the Order to Poland. Uprisings in the towns followed, resulting in the destruction of some of the oldest and strongest of the Order's castles at the hands of burghers at Elbing, Danzig and Thorn. With West Prussia falling to the League, the castle of Marienburg was besieged, again unsuccessfully. This heralded the start of the Thirteen Years War, which consisted of a series of retaliatory engagements with neither side gaining the upper hand, until the Grand Master sold Marienburg to pay the mercenaries which the Order had become increasingly reliant on. But the Order had been unable to complete its payments and, in

1457, the mighty fortress was sold instead to Danzig. In exchange for various privileges granted by King Casimir, the city presented this prize to the Polish Crown. The Grand Master was able to escape to Königsberg, which became the new headquarters of the Order's shrunken state. At this time the Teutonic Knights had the support of both the Holy Roman Emperor and the pope. Pius II had placed both Poland and the League under interdict but all papal edicts were effectively ignored. Although politically it had become a much bigger conflict, the war itself was relatively confined in Prussia with limited involvement from Polish and Lithuanian troops due to the lack of finances. The only major battle between the Order and the League took place in 1462 and resulted in the destruction of the former's army. The Order's fleet was obliterated the following year. In 1466, a papal legate mediated a truce which resulted in a peace treaty known as 'The Second Peace of Thorn'. For the Order the terms were harsh: West Prussia and Kulm were to be returned to Poland, along with the castles of Marienburg, Elbing and Christburg. Ermland would become an independent province but also come under the sovereignty of Poland (Figure 1.6). The Grand Master initially rejected the terms although he swore in front of Casimir to uphold the peace. His residence was permanently relocated to Königsberg and the administration reorganised within the reduced finances of the Order. But the end result was that the aristocracy in



FIGURE 1.6 Territorial divisions in Prussia following 'The Second Peace of Thorn' in 1466 (redrawn aft. Biskup *et al.*, 2009)

Prussia had more control over their local governments. In East Prussia the former mercenaries formed a new landowning class, who had been paid with fiefs taken from knights killed in battle and the Order's estates. They were the ancestors of the Prussian Junkers, who would come to define the conservative political and military culture of eastern Germany until 1947 (Clark, 2006).

In the second half of the fifteenth century, the Grand Masters were impoverished vassals of the Polish kings (Urban, 2003, p. 248). In the wake of the Reformation, humanists were encouraged to reorganise the administration of the Order. Throughout this time the Order sought to free itself from its obligations to the Polish king. In 1511, Albert of Brandenburg-Ansbach (aka Hohenzollern) was elected Grand Master and was soon involving the Order within the war between Poland-Lithuania and Russia. A lack of financial support limited the Order's military capabilities, and the Polish army moved on Königsberg. However, King Sigismund was preoccupied in the south and the Order's armies were able to ravage Polish territories in Prussia, reconquering the Neumark: territories east of the River Oder which had been briefly acquired by the Order from Brandenburg. As more Polish troops were brought into the fray, the Grand Master signed a truce in 1520.

Moreover, Albert had been increasingly attracted to Lutheran teachings and, in 1523, Martin Luther had even directed one of his key statements to the rulers of the Order. In the same year, the Grand Master allowed Lutheran preachers to deliver sermons at Königsberg and began to prepare for reforms. This saw the introduction of the German language into the mass, and the abolishing of saints' cults and pilgrimage. Monastic communities within the Order's territories renounced their vows. The reforms appear to have been popularly supported by the knights and towns within Prussia, and even the king of Poland approved them. The Order's East Prussian territories were secularised, releasing money from the confiscation of ecclesiastical properties, and the Grand Master took the oath of allegiance to the Polish king in Cracow in 1525. In return, Albert was allowed to maintain his own army, currency, government, legal system and foreign policy; in 1544, he founded Königsberg University. East Prussia was now a hereditary duchy dependent on Poland, and the introduction of Lutheranism marked another epoch in the religious transformation of Prussian society, the end of an era born from the Teutonic Order's crusades against pagan tribes three centuries previously.

One of the key factors behind the collapse of the Teutonic Order's state in Prussia was that its crusading culture had disintegrated by the fifteenth century. Not only were there no more viable targets for crusading in the eastern Baltic to attract the increasingly disinterested European nobility, especially compared to the threat posed by the Turks, but the Order could no longer even afford to host its famous *Reisen*. A *raison d'être* had always been a concern for the military orders and the Teutonic Knights had effectively outlived their purpose in Prussia (Frycz, 1978a, p. 21; Urban, 2003, p. 235).

The value of multiple perspectives

The impact of the crusades on Prussia can be described as nothing less than epoch-making. The process transformed indigenous tribal societies virtually beyond recognition; military conquest giving way to state formation, colonisation and religious conversion. It provided not only a base for crusading against Lithuania throughout much of the fourteenth century, but created an entire culture supporting the ethos of holy war. The Order itself did not abandon its monastic lifestyle and maintained a militaristic character which was eventually tested against sustained wars with Poland and Lithuania. Its gradual decline was inextricably linked to its uniqueness as a society forged in, and sustained by, the crusading movement. The details of the Prussian Crusade and the rise and fall of the Teutonic Order's state appear so thoroughly documented that, at first glance, it may be difficult to see what alternative perspectives can offer. In fact, historians are continuing to explore and debate the development and character of this medieval state – almost unique insofar as it was successfully run by a military order – and there are still many unanswered questions, many avenues that remain to be explored. Before introducing the value of a material culture perspective, the primary focus of this book, it is useful to outline the written and artistic sources that have shaped our understanding of this formative period in the making of Europe.

Written accounts

Most of our knowledge of medieval Prussia is derived from written sources. There was no native Prussian literary culture, and so all the information is derived from incoming Christians, presenting a one-sided, somewhat distorted and biased account of indigenous society and the nature of the crusades (Ekdahl, 2004, p. 2). These include three major chronicles of the crusades against Prussia and Lithuania, written by members of the Teutonic Order. The single most important work is the *Chronicon terrae Prussiae* completed in 1326 by Peter of Dusburg, who has already been mentioned several times in the historical outline above. Many scholars have argued that Peter presented a polarised opposition between paganism and Christianity in the context of the Order's crusades, stereotyping the Prussians as ignorant and primitive. The outcomes of victories were interpreted as the result of divine intervention, with the Knights themselves almost on a level with saints, fulfilling God's plan to redeem humanity (Trupinda, 1999, p. 120; for detailed references of related Polish historiography see Von Güttner Sporzyński, 2008, p. 16, note 16). But recent re-examination of the text suggests the tone of the chronicle points to 'comfortable co-existence' rather than terminal hostility, with Prussians fighting alongside Germans and, by the fourth rebellion of 1286, Germans even joining on the side of the Prussians (Fischer, 2007, p. 265). Most recently Rasa Mažeika (2009) has suggested Peter's *Chronicle*, which was written in Latin, may have presented a legal justification of

the Order's military activities to the papal curia, at a time when it was becoming involved in fighting neighbouring Christians and forging temporary alliances with pagan Lithuanians. It certainly situated the Order's campaigns in Prussia securely within the context of the crusades. Peter drew on a number of sources, including a series of annals (published as *Scriptores rerum Prussicarum*) and his synthesis remains the single most important extant history of the Prussian Crusade.

By 1340, Peter's *Chronicle* had been translated into German and expanded by the chaplain to the Grand Master, Nicolaus of Jeroschin, as *Die Kronike von Pruzinlant*. This text, with its emphasis on martial skills and the heroism of conflict, was aimed at members of the Order and, more widely, at lay crusaders who sustained the Lithuanian *Reisen*, rather than ecclesiastics. This accounts for the general omission of religious and ecclesiastical detail and is an interesting comment on the nature of the intended audience as a crusading institution (Fischer, 2010, p. 6). This text, in turn, was expanded by Wigand of Marburg in his *Chronica nova Prutenica*, written in German at the start of the fifteenth century and describing many of the Order's *Reisen*. Although only a fragment of this survives, the complete text was translated into Latin by the Polish priest Jan Długosz, who also documented the Polish-Lithuanian wars with the Teutonic Order in his monumental *Annales seu cronicae incliti Regni Poloniae* (*Annals of the Famous Kings of Poland*), written between 1455 and 1480. A few decades later, as Lutheranism was proliferating in Königsberg, Simon Grunau, a Dominican from the convent at Elbing, wrote the first comprehensive history of Prussia in German, covering a variety of topics including a section on the Prussian language. Simon's *Preussische Chronik* is as biased and imaginative as his predecessors; however, it has been used both freely and critically to inform our understanding of aspects of earlier society during the reign of the Order and even before the crusades. Subsequently, the history of Old Prussia was documented by various local commentators, typically clerics. The most important sources from the early modern period are Christoph Hartknoch's *Alt- und Neues Preussen* and later work on the Teutonic Order including the first edition of Peter of Dusburg's narrative (see below), and Matthaeus Praetorius' *Deliciae Prussicae, oder Preussische Schaubühne*, consisting of eighteen books on the history and customs of Prussia which also included a volume on the Order (Lukšaitė, 1999).

Many scholarly editions of all of these texts, or fragments of these texts, are available. The three chronicles of the Teutonic Order have long been available in German (Strehlke, 1861; Hirsch, 1861; Scholz & Wojtecki, 1984), as well as Polish (Voigt & Raczyński, 1842; Wyszomirski & Wenta, 2004; also see historiographic summary by Trupinda, 1999, pp. 7–16) and most recently Jeroschin's *Kronike* in English translation (Fischer, 2010). Peter's *Chronicle* is also available in Lithuanian (Batūra, 1985). Długosz is considered the greatest literary figure of the Polish Middle Ages and his work is widely available (the best scholarly edition is considered to be Przezdziecki *et al.*, 1863–1878), including in English translation (Smith, 1997). Grunau's work is available in both German (Perlbach *et al.*,

1876–1896) and Polish (Zonenberg, 2009). These sources have primarily been used to reconstruct historical events, but they also represent literary achievements associated with medieval Prussia. With these notable exceptions (and Jeroschin's use of language has been compared to Wolfram von Eschenbach's; Fischer, 2010, p. 6), the Order itself did not generate much in the way of literature (for the most recent work on this see Wenta *et al.*, 2008). Throughout this book, I have referred to passages in both Peter's and Nicolaus' narratives. Whilst acknowledging that the latter substantially repeats Peter's text, the intended audience of this book will find the English translation of Jeroschin more accessible. In this respect, I have taken direct quotes predominantly from Fischer's (2010) translation. For the same reason I have quoted Sterns' (1969) translation of the Order's Rule and statutes.

The formation and early history of the Teutonic Order is also documented in papal and imperial bulls, as well as a host of documentation relating to the Order's activities in the Holy Land (Morton, 2009), other parts of the Mediterranean (Forstreuter, 1967), Hungary, Germany, Bohemia, Prussia and Livonia (Arnold, 1965; Strehlke, 1869, re-printed 1975; Wieser, 1969, 1972). The earliest record of the statutes of the Teutonic Order dates from c.1244–1249, with further additions after the general chapter of 1264 (Zygner, 2005, pp. 8–9). These have been published in German (Perlbach, 1890, re-printed 1975) and Polish (Trupinda, 2011). The extensive sources for the Teutonic Order's state, its administrative structure and parochial organisation were synthesised in vast corpuses by German scholars in the nineteenth and twentieth centuries (firstly and most famously by Voigt (1827–1839)), and then the compilation of documents relating to the Order's and bishops' chancelleries in Prussia dating from the mid-fourteenth century in the series *Preussisches Urkundendenbuch* (1882–1975), and the *Scriptores rerum Prussicarum* (Hirsch *et al.*, 1861–1874); a good summary by Arnold can be found in Jähnig & Michels, 2005, pp. 23–48; see also Lampe, 1975; Arnold, 1996, 2005a; Urban 2003, pp. 282–286; Ekdahl, 2004; Boockmann, 1981; Lindenblatt, 2002), punctuated by Karl Kasiske's (1934) imposing work on the settlement of Prussia by the Teutonic Order up to 1410 and Theodor Penner's historical atlas of Prussia (1942; with a second, unpublished volume tracing the names of almost 2000 Prussian families in the mid-fourteenth century; Biskup, 1991). Amongst the documents produced by the Order, perhaps the two most important surviving texts are *Das Grosse Ämterbuch des Deutschen Ordens* and *Das Marienburger Tresslerbuch*; both are widely used to inform numerous studies of the Order's state. More recently, Hans Mortensen, Gertrud Mortensen and Reinhard Wenskus (1968–1988) produced an invaluable collection of fifteen portfolios of cartographic sheets documenting the historical geography of Prussia between the fourteenth century and the 1920s, a truly monumental piece of scholarship. Between 1967 and 2008, under the direction of probably the most influential contemporary scholar of the Order's history – Udo Arnold – and sponsored by the modern Teutonic Order, 65 volumes of detailed historical studies on the Order were published under the label of *Quellen und Studien zur Geschichte des Deutschen Ordens* (for a bibliography of Arnold's work see Jähnig

& Michels, 2005). The proceedings of the *Ordines Militares* conference series in Toruń and a series of international conference sessions by the Oswald Von Wolkenstein-Gesellschaft (in 2004 collaborating with the University of Toruń; in 2006 at the International Medieval Congress) represent important contributions to the medieval history of the Order. Both short (Schneidereit, 1994) and detailed histories of medieval Prussia are available in German, Polish and French (Buschinger & Olivier, 2007; Kowalska, 1996; Sarnowsky, 2012).

The range of primary sources has been recently reviewed in Polish (Radzimiński, 2005a). Indeed, Polish scholars have shaped their own historiography of medieval Prussia, not only focusing on political relations between the Teutonic Order and Poland, but also on earlier relations with the Prussian tribes (Białuński, 1999), multiple aspects of the Order's state (Von Güttner Sporzyński, 2008) and its origins (Dygo, 1992; Górski, 2003). This is exemplified in the tireless work of renowned scholars such as Marian Biskup (see especially Arnold & Biskup, 1982; Labuda & Biskup, 1989; Biskup 1986, 1993; Biskupowa & Biskup, 2002, 2004, 2009; Biskup *et al.*, 2009), Zenon Nowak (e.g. 1995, 2000 and regular editor of the *Ordines militares* series), Jan Powierski, particularly detailed on place names and historical geography (e.g. 2001, 2003), Sławomir Józwiak (e.g. 1997, 2001a, 2004; Józwiak & Trupinda, 2007) and Roman Czaja (e.g. 1992; 1999) who has worked extensively on the towns and economy of medieval Prussia. Janusz Trupinda, responsible for the Polish translation of the Order's Rule (2002, reprinted 2011) and the former vice-director of the Castle Museum in Malbork has written extensively and edited works on multiple aspects of the Prussian Crusade and the Order's state (e.g. Trupinda 1999; 2002; 2006).² The most important recent work on the Order's period of rule in Pomerania has been written by Maksymilian Grzegorz (1997). Indeed, Marian Biskup and his colleagues have produced the most up-to-date synthetic work on the Teutonic Order's state (Biskup *et al.*, 2009), entitled *Państwo zakonu krzyżackiego w Prusach: Władza i społeczeństwo* (*The State of the Teutonic Order in Prussia: Power and Society*). The documentary sources for certain aspects of life in the towns and castles of the Order have enabled some very detailed studies to be conducted of, for example, the stockpiling of weapons in Marienburg castle or the specific details of commodities traded in Thorn in the second half of the fourteenth century (Czacharowski, 1983, p. 57). These also provide interesting possibilities for constructing micro-histories – i.e. detailed, high-resolution narratives providing a more nuanced understanding of life in medieval Prussia, especially when synthesised with the abundant archaeological data from urban excavations.

Lithuanian historians have also contributed to the body of scholarship on medieval Prussia, although they have diverged from some of the interpretations of events presented by Polish historians (Dundulis, 1971). In fact, there are some clear differences between how the actions of the Teutonic Order in the Baltic are described and defined by different schools of historians with contrasting backgrounds; the early historiography of the Teutonic Order has been coloured by nationalist agendas on all sides (Arnold, 2005b). The works of William Urban and

Eric Christiansen mentioned above, the most accessible in English on the crusades of the Teutonic Order in Prussia (as well as Livonia and Lithuania), contrast not only with each other but with perspectives presented by Polish and Lithuanian scholars (Ekdahl, 2004). For example, William Urban and Łucja Okulicz-Kozaryn characterise the indigenous Prussians in very different ways; the former drawing exclusively on external Christian written sources and creating an impression of a cruel, militaristic and comparatively primitive society, the latter examining a broad range of archaeological data alongside diverse written sources and suggesting the destruction of a more sophisticated culture at the hands of the crusaders.

Art

The art history of medieval Prussia has been developed by both German and Polish scholars (for a recent historiographic survey see Herrmann, 2007, pp. 40–47, and for the most updated work on Prussian art see the exhibition catalogue and associated volume of essays edited by Pospieszna, 2010a). Notable are the works of Bernhard Schmid (e.g. 1925, 1931), Kazimierz Pospieszny (2001, 2009), Jerzy Domański (e.g. 1997), Marian Kutzner (e.g. 1995, 2005), Tadeusz Jurkowlaniec (e.g. 1989, 2009) and Monika Jakubek-Raczkowska (e.g. 2006, 2009). A diverse range of pre-Christian Prussian art (predominantly applied to artefacts) has been recovered from archaeological contexts and, as a result, its study is sometimes confined to that discipline. In fact, our understanding of late-medieval artefacts recovered from excavations has benefited from examination by both archaeologists and art historians (Figure 1.7). Indeed, one of the main topics in Prussian art history has been the establishment of relative chronologies based on architectural elements and decorative styles which, in turn, have been used by archaeologists for dating.

Following the Prussian Crusade and the establishment of the Order's state, the production of art in Prussia parallels contemporary trends elsewhere in Catholic Europe, i.e. the overwhelming majority is religious in both subject matter and context (Karłowska-Kamzowa, 1983). There are examples of both foreign artistic influences on Prussian art and architecture (Wróblewska, 1981), and aspects of the Order's distinctive aesthetic style replicated elsewhere in Christendom (Kajzer, 2007), emphasising its European connections. The Order, alongside bishops and monasteries, represented major patrons of artisans and producers of artistic works, not only in Prussia but within its European houses (Boockmann, 1991; Arsyński, 1983). Artisans within towns and those working in the Order's convents produced a range of religious pieces, from sculpture and liturgical vessels through to wall paintings and decorative architectural elements, some of which have survived remarkably well (Heise & Schmid, 1884–1919; Ulbirsch, 1976; Wozniński, 2005, 2010). From the fourteenth century there is a growing amount of secular art, associated with the merchant communities of the Hanseatic towns, as well as with the Teutonic Order's exultation of its own heritage and identity (Trupinda, 2008). However,



FIGURE 1.7 Artefacts from medieval Prussia: (a) the remains and reconstruction of a helmet from Olsztyn (Allenstein) (in Nowakowski, 1989, pp. 149, 151, aft. E. Grabarczyk); (b) a mid-fifteenth-century gittern found in Elbląg (Elbing) (Nawrońska, 2008, p. 414, aft. M. Gańko); (c) a ceramic statuette from the portal of the castle chapel in Elbląg (Nawrońska 2004, p. 521, aft. B. Kiliński and K. Ody)

relatively few medieval Prussian churches have been investigated systematically or in any detail, including the largest in towns such as Toruń and Elbląg; the first comprehensive catalogue was produced by Christofer Herrmann in 2007 and included 345 churches alongside 66 castles and 15 town halls.

The character of medieval Prussian art has been the subject of some debate. One of the more interesting flashpoints has revolved around the notion of *Kolonialkunst*, i.e. the extent to which medieval Prussian art be described as colonial, as something incoming, German and detached from the indigenous population. This concept has been used by German (Herrmann, 2007, p. 33) and Polish scholars (Świechowski, 1965), particularly relating to Prussian gothic architecture. The concept of a ‘German’ colonial agenda behind architecture can be readily dismissed as a modern nationalist construct, but what is clear is that medieval Prussian architecture as it develops especially from the latter decades of the thirteenth century – houses, churches, castles, town structures – differs dramatically from indigenous traditions. There is some adoption of local forms, as in the case of fortifications or even dwellings, but imported forms otherwise replace or assimilate indigenous building traditions. The decoration of convents and churches in the characteristic *Backsteingotik* clearly reflects influences from neighbouring regions in Pomerania and south-eastern Germany, as well as the Cistercian Order in the southern Baltic (see also chapter 4). But Prussian architecture also becomes very distinctive, ultimately reflecting the requirements of the Order and developing its own tradition, rather than simply replicating forms from neighbouring ‘motherlands’. As with the crusades in the Holy Land, the use of the term ‘colonial’ does not contribute to our understanding of the impact of the crusades and the development of a new culture in Prussia. Moreover, the proliferation of a crusader culture in Prussia, reflecting a fusion of knightly values (often described as ‘chivalric’) and the religious dimensions embedded within Christian holy war, is very much reflected in elaborate visual display; a staple means of social communication in late-medieval European societies. This is explored in more detail in chapter 4, but a snapshot can be found in John Dlugosz’ *Banderia Prutenorum* (*Blazons of the Prussians*), which catalogues the banners of the Teutonic Order’s army captured after the battle of Tannenberg, illustrated by Stanisław Durink. For example, the folio representing the flag of the Pomeranian commandery of Schlochau (Człuchów) shows the heraldic charge of the *Agnus Dei* (the paschal lamb): a Christological symbol of self-sacrifice and a reference to John the Baptist, also adopted by the Templars and Hospitallers (Ekdahl, 1976; for a facsimile see Pietrzyk, 2009). Examples of surviving art from the Order’s state are now on display in museums in Germany, Poland, the Kaliningrad Oblast and Lithuania, although some are only known from archival sketches, photographs and inventories, and much more has been destroyed, especially during the Second World War. A limited number of examples remain *in situ*, fragmentary remnants of the decorative schemes of castle chapels, portals and exterior architectural elements. Other fragments now in museums have been recovered during archaeological excavations.

Whilst the Reformation closed the chapter on the period of Prussian art production that can be broadly defined as ‘medieval’ by its association with an earlier, Catholic world-view, artistic reflections on the crusading period continue to be produced into the modern day. Some of these are documentary in character. For example, castles did not capture the attention of artists until the end of the fifteenth century (Kochański, 2001, p. 459), but drawings of these structures from the seventeenth century record features that have now been lost. The sketches of Hennerberger in 1629 revealed the Order’s castle at Tapiaw (Gvardeysk) had a bridge, of which no archaeological traces have been identified; the same source recorded bridges at the castles of Thorn and Marienburg (Kochański, 2001, p. 460). Better known are the dramatic renditions of personages, battles and events, often nationalistic in character, that punctuate the history of how the Teutonic Order’s activities in Prussia (and Livonia) have been perceived by subsequent generations (see also chapter 8). These are exemplified in the work of the nineteenth-century Polish painter John Matejko (1838–1893), especially his *Bitwa pod Grunwaldem* (*Battle of Grunwald*; 1878) and, from 1960, by the cinematography of Aleksander Ford in his rendition of Henryk Sienkiewicz’s *Krzyżacy* (*Knights of the Cross*). Although there are occasional rumours concerning a remake which, if it ever happens, will provide an invaluable glimpse into modern Polish perceptions of the Order’s history, Ford’s film remains an enduring classic and the Polish equivalent of Eisenstein’s *Alexander Nevsky*.

Archaeology

The archaeology of medieval Prussia encompasses, as all historical archaeology does, buried cultural deposits alongside standing buildings and extant artefacts which never entered the ground; all can be classified as ‘material culture’. In Poland, archaeology has sometimes been separated from architectural history, but in reality the line between the two is blurred and represents more of a preferred emphasis than a methodological segregation. A clearer distinction exists between archaeology and art history, even though there is a significant overlap in what is sometimes referred to as ‘plastic art’ (i.e. carved, moulded and worked stone, ceramic, wood, metal, glass and bone). The study of the material culture of medieval Prussia is segregated into early- and late-medieval archaeology. The former focuses on Prussian, Scandinavian and Slavic societies, and almost everything we know about Prussia before the crusades is derived from archaeological data, which encompasses settlements, fortifications, cemeteries and occasional cult sites. However, as discussed in the next chapter, a sophisticated typology of pre-Christian Prussian sites and material culture has yet to be developed. Late medieval archaeology in Poland, Russia and Lithuania, as elsewhere in Europe, is concerned both with recording and analysing extant standing buildings, and with the buried traces of towns, castles, fortifications, churches, monasteries and settlements within the fluctuating bounds of the Teutonic Order’s state. This region has provided some of the most spectacular

examples of medieval archaeology, particularly in the waterlogged deposits of towns such as Gdańsk and Elbląg (see also chapter 5). However, the divide between early- and late-medieval archaeology is often non-existent, and one of the key questions for many excavations concerns the thirteenth century as a time of transition from pagan to Christian societies. Of course, this chronological horizon is not always present or identifiable, whilst archaeological research is unevenly distributed across former Prussian lands.

The most visible monuments of the Teutonic Order in Prussia are its iconic red brick castles, of which the best examples can be found in the historical Powiśle region (territories around the lower Vistula encompassed within the Pomeranian and Warmian-Masurian voivodeships). These were the settings of dramatic historical events, but they were, of course, much more than this, punctuating the nexus of commanderies that reorganised conquered tribal territories and channelled people, resources and commodities throughout and beyond the Teutonic Order's state. They were also major stimulants for settlement and secure points for the unfolding parochial network. From an archaeologist's perspective these photogenic castles are messy, complicated structures, although they are the most important points of contact between archaeologists, historians, museum managers and the wider public. Since their initial construction, they have been expanded, reoccupied, rebuilt and restored to an imagined, former state. Yet despite their recurring links with documented events and named individuals, these castles can reveal much more about their builders and occupiers than is recorded in the written sources. The architecture alone 'emphasised the ways that military and religious obligations intertwined; and every detail underscored the order's solidarity and power' (Urban, 2003, p. 175).

The study of castles dates back to the seventeenth century, when Hartknoch (1684) published his monograph on Prussia which included an analysis of castle architecture and their various building phases. They became the focus of increasing attention in the early-nineteenth century (Frycz, 1978, p. 19). Ferdynand of Quast is probably the best-known conservator of Prussian heritage and one of the founders of conserving monuments and art in Germany. With a background in architecture he was also renowned as an art historian and, between 1886 and 1932, collected over 7,000 drawings of which the majority were destroyed in a fire in 1945. However, many of his drawings relating to restoration works survive in various local archives, representing some of the earliest detailed plans of Prussian churches and castles, as well as evocative drawings of their interiors and exteriors (Herrmann & Rzepiński, 2006). The drawings of castles from such publications offer a valuable insight into their past structures. The various phases of restoration and conversion that affected the Prussian castles can only be discerned archaeologically (Kochański, 2001, p. 465). Here there is also much work to be done. Excavations in the 1960s revealed many tantalising aspects of the development of castle sites, but systematic investigations have only really begun in the last decade. Sieving is not routine on all sites, and the continuous occupation (and restoration) of major castles such as at Malbork

has resulted in significantly disturbed cultural layers and complicated taphonomy (Figure 1.8). The most important works to date are typically typological in character (e.g. Arsyński, 1995; Torbus, 1998), but require updating into a new comprehensive study, incorporating recent archaeological investigations cross-referenced with written sources (Poliński, 2003; Borowski, 2010). Most recently, Sławomir Józwiak and Janusz Trupinda (2012) completed a study on the structure and layout of commandery castles, with the aim of updating the monumental work of Conrad Steinbrecht (see below) which remains widely used as a reference for castle plans. Moreover, each castle site has its own complex history of archaeological and architectural study involving German and Polish researchers in the majority of the Order's former states (e.g. Thorn/Toruń; Chęć, 2011). Castles continue to be excavated with the aim of recording fabric and verifying phases of occupation through stratigraphic analysis (see also chapter 4). These have provided invaluable information on their construction and multiple aspects of daily life, and will invariably expand our understanding of these structures significantly in the future.

Beyond the castle walls, the landscapes of the Order's commanderies are crowded with a host of smaller fortified structures, settlements, towns, roads and bridges, represented by thriving modern centres alongside earthworks, buried and submerged material traces and landscape relics (Figure 1.9). When synthesised with written sources these landscapes can be reconstructed at a very high resolution, as recently demonstrated by Dariusz Poliński's (2003) work on rural settlement in the Kulmerland, Mieczysław Haftka's (e.g. 1971, 1991) work on early-medieval Pomeranian and Prussian settlement in the Vistula Delta region and Kazimierz Grążawski's (2009) detailed study of settlement in Lubavia. For the archaeologist they represent a series of upper layers in a stratified mosaic stretching back into prehistory. In this respect archaeology offers a unique, long-term perspective of the history of these sites. It is possible to track human activity at or near the site many centuries before and after the castle's construction. This gives us a unique context for the site which can be compared with similar structures in the region and beyond. It enables us to test notions of homogeneity in material practices, within an otherwise politically and ideologically unified military order state. It also enables comparisons to be made with both the ethnic homeland of the Order (i.e. the eastern principalities of the Holy Roman Empire providing its recruits and political support) and other areas experiencing the *Ostsiedlung*. This term is not particularly helpful when it implies an organised, ethnically driven German agenda of colonisation but, given one of the ongoing debates concerning migrating groups is the extent to which they express their identity through material practices, it is useful to situate the Order's state within a broader European context. To what extent were its European – particularly Imperial but also Slavic – connections reflected in its material culture? How was Christianity – emblematic of medieval European identity – materialised in the Order's state where pagan beliefs and practices allegedly continued into the early modern period? Cast in this



(a)



(b)



(c)

FIGURE 1.8 Excavations at the Teutonic Order's castle in Grudziądz (Graudenz) in 2009 (a), excavations inside the western part of the castle in Radzyń Chełmiński (Rehden) in 2009 (b) and excavations in the north-west part of the outer bailey in Malbork (Marienburg) castle in 2005 (c)



FIGURE 1.9 Remnants of embankments in the western part of the Sztum Forest, south of Malbork. It has not yet been possible to date these structures, but they may represent a line of fortifications constructed by the Teutonic Order during the series of conflicts with Poland-Lithuania in the first half of the fifteenth century

light, medieval Prussia becomes a laboratory for exploring the diversification of material culture resulting from colonisation and multi-cultural interaction.

Before 1945, Pomerania and East Prussia were part of Germany and German scholars were very much involved in the early archaeology of the Teutonic Order. The most important figure from this era was Conrad Steinbrecht, who led almost four decades of restoration works at Malbork (then Marienburg) from 1882 and published extensively on this castle, as well as the art and architecture of the Teutonic Order in Prussia (e.g. Steinbrecht, 1897, 1920). Following the incorporation of much of East Prussia into Poland in 1945, the State Archaeological Museum (*Państwowe Muzeum Archeologiczne*) in Warsaw developed the first systematic archaeological study of the Balts in North Poland with excavations across this region, especially within the Suwałki County (Podlaskie voivodeship). Archaeological research in nearby Podlachia began in the nineteenth century, first systematically catalogued by Józef Pokrowski. In the 1930s, excavations recovered material from Prussia that was sent to Königsberg, driven by an underlying agenda exploring the *Drang nach Osten*. One such example was the discovery in 1939 of the body of a girl with blond hair, aged 12–14 years, wrapped in the skin of a sheep within a peat bog near Drwęck. This was interpreted as a votive offering and proof of Germanic culture in the region before the Middle Ages. The body was subsequently put

on display in the museum in Königsberg and vanished after the war, but after further investigation turned out to be a murder victim from the end of the nineteenth century (Hoffmann, 2009, pp. 146–149).

In the inter-war period and the 1950s, research was dominated by archaeologists from Warsaw such as Roman Jakimowicz, Krystyna Musianowicz and Zdzisław Rajewski, whilst the archaeology of the regional capital, Białystok, was developed by Danuta and Jan Jaskanis. In 1961, Jerzy Antoniewicz (1964) obtained his doctorate for his work on Early Iron Age fortified settlements in Prussia and, subsequently, over 65 early-medieval sites have been identified, predominantly fortifications, burial grounds and kurgans (burial mounds). The majority are situated between the Rivers Narew and Bug; settlement between the Biebrza and Narew is most poorly identified. This culminated in a major international exhibition entitled *The Balts: The Slavs' Northern Neighbours* in 1979, which continued to be displayed over the following decade (Piotrowska, 2007). In 1976, the museum opened a department for the archaeology of the Balts led by Marian Kaczyński. The museum was also involved in excavating late-medieval sites, most famously, from 1958, the battlefield of Grunwald (Rajewski, 1963; see also chapter 8 for further details of the excavations and finds). The Institute of Archaeology and Ethnography in Warsaw (*Polska Akademia Nauk*) has also been actively involved in excavations of Prussian and Order sites, most recently Maria Dąbrowska's excavations in the outer bailey of Malbork. Archaeologists from both the State Archaeological Museum and Polish Academy of Sciences were actively involved in the upsurge in urban archaeology in the post-war years which culminated in the 'Millennium excavations' as part of celebrations of the thousand years of the Polish state. This 'golden age' of Polish archaeology brought exceptionally preserved material culture from towns such as Elbląg, Gdańsk and Kołobrzeg to an international audience. The towns themselves have been the subject of excavations since the post-war period. In Gdańsk, work begun in 1948 continued as part of a project looking at the emergence of the Polish state, and would be taken over by the city's Archaeology Museum in 1987 (Paner, 1997); in Elbląg detailed archaeological investigations shadowed urban renewal from 1980 (Nawrońska, 1997); whilst in Malbork the Old Town has not seen any systematic excavation (Sawicki, pers. comm.). Road construction, and in Podlasie, further hydrological developments in the 1990s increased the number of archaeological discoveries (Bieńkowska, 2006). From 1978 until the present day the programme *Archeologiczne Zdjęcie Polski* (AZP; Archaeological Picture of Poland) has been systematically mapping sites across the whole country and, as a result, has dramatically increased the number of known archaeological sites and monuments, to date the number registered reaching almost half a million.

Today, the archaeology of medieval Prussia is actively pursued at the universities of Gdańsk, Toruń, Bydgoszcz, Elbląg, Białystok and Warsaw, the Castle Museum in Malbork, and the regional museums in Gdańsk, Olsztyn and Elbląg. The 'Pruthenia' society also sponsors excavations and seminars on the history

and archaeology of the Old Prussians. In the Kaliningrad Oblast, Alexander Khoklov continues to direct a team of archaeologists and excavate Sambian sites from multiple periods. Both the University of Toruń (UMK) and the Castle Museum in Malbork have developed international reputations as research centres for the history and archaeology of the Teutonic Order's state. Indeed, both have early histories of archaeological research; Steinbrecht has already been mentioned, but from the late-nineteenth century in Toruń the *Towarzystwo Naukowe w Toruniu* (TNT) and *Copernicus-Verein für Wissenschaft und Kunst* (CV) created a solid foundation for archaeological research in the Kulmerland (Lech, 2002). As early as 1818/1819, excavations at the castle had been conducted by a Prussian officer and began in earnest in the early-twentieth century, with a major project from 1958–1966 resulting in the exposure and conservation of the castle ruins. Phases from the Hallstatt, early- and late-medieval and early-modern periods were identified by Jadwiga Chudziakowa, who would go on to publish on the archaeology of medieval Toruń and direct the Institute of Archaeology at UMK from 1984–2005 (Uziębło, 2002, pp. 165, 170).

Both institutions are situated within or next to major monuments associated with the Teutonic Order's state; the remarkable preservation of medieval urban fabric at Toruń prompted its addition to UNESCO's World Heritage Sites listing in 1997, alongside the castle at Malbork. The study of medieval archaeology at Toruń was present from its early days, although it was not officially defined until 1985 with the creation of the Department of Medieval and Modern Archaeology. Interest in late-medieval material culture had already developed with the establishment of a department specialising in glass in 1982, particularly associated with Jerzy Olczak's work. Both archaeologists and historians have contributed – and continue to work – on the history of the town and its role within the Order's state, as well as more broadly within the Kuyavian-Pomeranian voivodeship, particularly the historical Kulmerland. Toruń itself has seen intensive rescue excavation over the last two decades led by the local PKZ (*Pracownia Konserwacji Zabytków*) whilst the Institute of Archaeology at UMK has also been working extensively across the Kulmerland and Dobrin Land from the mid-1980s. Annual excavations at the Order's castle in Toruń have been directed by Adam Chęć from 2009, whilst Dariusz Poliński has been conducting excavations at the multi-period site at Pień, which includes a structure attributed to the Teutonic Order's procurator's residence, and Marcin Wiewióra has been excavating at Papowo Biskupie (Bischöflich Papau), Grudziądz (Graudenz), Radzyń Chełmiński (Rehden) and Wąbrzeźno (Briesen). Daniel Makowiecki, previously based at the University of Poznań, has analysed faunal assemblages from a number of early- and late-medieval sites in the region (see also chapter 7).

At Malbork, a bewildering array of conservation, historical and archaeological studies have been developed since 1961 when the Polish castle museum was founded. Most recently the archaeology department has been under the stewardship of Zbigniew Sawicki, who has directed excavations not only around the castle but at sites within the former commandery of

Marienburg such as at Biała Góra and, indeed beyond, at Kwidzyn and Tczew (see also chapter 3). The eastern stretches of the Podlaskie voivodeship bordering with Belarus are less well understood than the lower Vistula region, with sites under continuous threat from treasure hunters with metal detectors (Nowakiewicz, pers. comm.); interestingly the region around Toruń does not appear to have attracted metal detectorists (Kobyliński & Szpanowski, 2006, p. 17)). Occasionally such finds end up in museums – in 2009, over 100 poorly preserved silver coins, minted by the Order in the first half of the fifteenth century, were handed over by metal-detectorists to the Museum of Warmia and Masuria in Olsztyn. Internationally, the archaeology of medieval Prussia is best known within the context of the Hansa, exemplified in the work of David Gaimster (e.g. 2005) and the conference series of *Lübecker Kolloquium zur Stadtarchäologie im Hanseraum*.

The archaeology of medieval East Prussia in the Kaliningrad Oblast is the least accessible to an international audience, although it has a long history stretching back to the early-eighteenth century (Kulakov, 2002). From the mid-nineteenth century, scientific societies began leading archaeological investigations, particularly The Prussian Antiquity Society (*Altertumsgesellschaft Prussia*) and The Physical and Economic Society (*Physikalische-ökonomische Gesellschaft*). In the Memelland from the late 1880s, local residents began supplying museums with significant quantities of material recovered from private, amateur excavations (Tamulynas, 2009). Early pioneers who systematised East Prussian archaeology were Otto Tischler and Adalbert Bezzenberger, both directors of the Prussia Museum in Königsberg. One of the most notable directors was Wilhelm Gaerte (1890–1958), who published a number of key works including the seminal *Urgeschichte von Ostpreußen* in 1929. The museum hosted several influential scholars such as Emil Hollack, who produced an archaeological map of *Ostpreußen* (East Prussia) in 1908. The museum also produced the most important journal series on the early archaeology of East Prussia: *Sitzungsberichte der Altertumsgesellschaft Prussia*, which was published from the mid-nineteenth century until 1940. Perhaps the two most influential figures associated with the development of East Prussian archaeology leading up to the Second World War were Herbert Jankuhn and Carl Engel. Whilst Königsberg University and the Prussia Museum dominated archaeological research in East Prussia in the early-twentieth century, museums in Germany, particularly in Berlin, also accumulated considerable material from the region. Today, the Museum of Art and History in Kaliningrad, which contained the former Prussia Museum, is the centre for archaeological research in the Oblast. It began to lead excavations and research from 1974 following the approval of the Ministry of Culture and, by 2000, had documented 329 monuments (Kulakov, 2002a). Most recently, the museum inventory books were restored, conserved and published, making a previously lost corpus of archaeological material publicly available. To date, 1,584 pages from 13 different books have been restored, and include many detailed drawings of identifiable

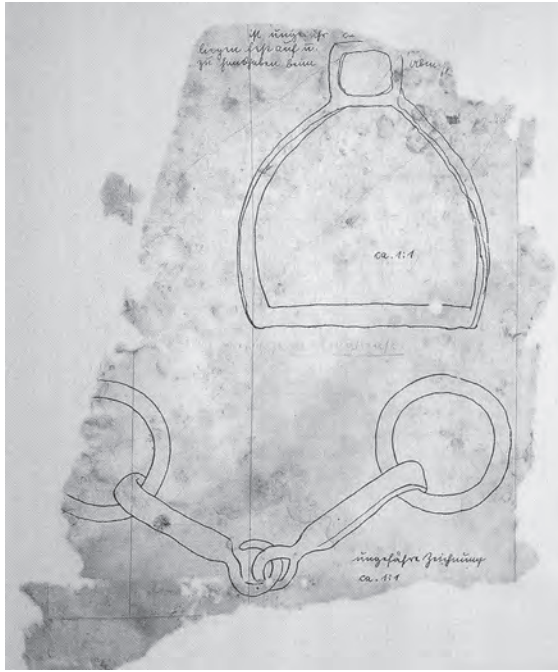


FIGURE 1.10 Page from one of the Prussia Museum books (no. 5), showing equestrian artefacts from the Viking Age Sambian cemetery at Schulstein (Volnoe in the Kaliningrad Oblast) (Bitner-Wróblewska, 2008, p. 240)

Prussian artefacts (Figure 1.10). From the mid-1990s, excavations in the central square and castle in Kaliningrad were directed by Vladimir Kulakov from the Archaeological Institute of the Russian Academy of Sciences. These series of excavations have had increasingly international exposure, in part thanks to the dissemination of information online. Kulakov has written widely on the archaeology of East Prussia, and there are a number of ongoing excavations of both Prussian and Teutonic Order sites in the Kaliningrad Oblast. The first gazetteer of medieval castles in the Oblast was recently published in Russian (Bakhtin, 2005) and excavators have begun to uncover archaeological contexts relating to medieval Königsberg within the last year.

The archaeology of Lithuania offers a fascinating and invaluable window into life within a state that maintained its political independence despite a century of crusading by the Teutonic Order. In western Lithuania, the Klaipėda region and Samogitia to the north encompass the limits of the Order's territories. Their archaeology not only testifies to the volatile nature of this militarised frontier, marking the end of several hill-forts in the mid-thirteenth century and subsequently the wilderness setting for the *Reisen*, but also the Order's attempts at stabilisation through the construction of castles and outposts, as well as reflecting a permeable membrane for the exchange of commodities and ideas. In 1991,

the ‘Research Centre of History of Western Lithuania and Prussia’ was established at Klaipėda University and, from 2003, research within the Klaipėda region and Samogitia has been led by The Institute of Baltic Sea Region History and Archaeology (*Baltijos regiono istorijos ir archeologijos institutas*). The castle and town itself has long been the focus of archaeological research. Excavations have been carried out in the area of the castle since 1968 and in the Old Town from 1970, with systematic excavations developing from the mid-1970s (Žulkus, 1997), and particularly associated with the work of Vladas Žulkus (the co-founder of the Institute), although since the early-twentieth century, Lithuanian contributions to the archaeology of East Prussia have been extensive (Kulikauskas *et al.*, 1961; see also Gimbutas (1963) and Žulkus’ extensive work on Baltic archaeology), facilitated by the permeability of the border between the Oblast and Lithuania during the Soviet era (Krickus, 2002, p. 40). The role of castles has been investigated most extensively by Gintautas Zabiela (e.g. 2001, 2004, 2007). Most archaeological investigations relating to the crusading period have focused on Late Iron Age sites, whilst rural colonising settlements are virtually unknown archaeologically.

Multi-/inter-disciplinarity and the value of material culture

Today, the study of the Teutonic Order and the Baltic Crusades is international, which as Udo Arnold (2005b) optimistically observed, will ultimately bring about the demise of nationalist interpretations of this dramatic epoch. The historiography of medieval Prussia is an enduring monument of scholarship and provides a vital framework and pool of source material for archaeologists. As is the case elsewhere in Europe, archaeologists tend to refer to published historical studies and translated primary sources much more than historians refer to material culture. This is largely the product of different research agendas and methodologies, but the relationship between these disciplines should be seen as extremely positive and complimentary. Indeed, historians such as Jan Powierski (e.g. 2003) and Grzegorz Białuński (e.g. 2002) had utilised archaeological sources in their detailed, macro-regional studies of the Order’s state and called for the verification of documented, albeit less-well known sites, through archaeological investigation. Likewise, Andrzej Nowakowski (1994) in his seminal work on the arms and armour in medieval Prussia drew on the broadest range of sources, including artefacts in museum collections and those which had been excavated. Art-historical and architectural studies are likewise well-established partners. Even though the buildings of the Order have been predominantly studied from an architectural and engineering perspective, written sources have also shed important light on their construction and the organisation of works (Arszyński, 2005). For this reason, and also because of the anticipated lack of familiarity with the historical background among many readers, historical summaries are provided within each chapter as an essential complement to the archaeological data.

This approach is exemplified by the continuing multi-disciplinary research into the Teutonic Order’s state at the University of Toruń. In the

context of European Research funding unfolding within the EU's Framework Programmes, multi-disciplinary teams working with a common set of objectives are likely to become the most successful template for future research. This is also perhaps the best way of overcoming significant language barriers between German and Polish, but also Lithuanian, Russian and Scandinavian scholars (Arnold, 2005b, p.7); the increasing amount of publications on medieval Prussia in English is a case in point. There have been several exhibitions on Prussia and the Teutonic Order; the most important took place in 1990, celebrating the eighth centenary of the Order's foundation, and involved 30 collaborating institutions from across Europe as well as the Metropolitan Museum of Art in New York (Benninghoven, 1990).

Ultimately, an inter-disciplinary approach is desirable in furthering our understanding of medieval Prussia. The incorporation of multiple types of evidence is nothing new in medieval archaeology, and Polish, Lithuanian and Russian archaeologists working in the north and trained in a cultural-historical approach continuously reflect on the relationship between written sources and material culture. Inter-disciplinary studies must be led by specific research questions and, depending on what is being asked, it should be possible to compare and contrast written, artistic and archaeological sources in the process of investigation. The main challenge in fact is to formulate suitable questions that are sensitive to the available data. Moreover, especially in the case of early-medieval Prussia, the different types of evidence vary in quantity and quality, and our ways of perceiving them in different disciplines may not be easily aligned.

This book is largely concerned with archaeological data but, as will become apparent, readily sets this alongside other sources. After all, material culture is provided with a fundamental level of meaning by situating it within its specific historical context. In turn, an archaeological perspective can shed new light on the cultural processes that resulted in the incorporation of the Prussian tribal lands into Christian Europe. Furthermore, as discussed in chapter 8, the monuments of medieval Prussia are very much a part of modern Polish, Lithuanian and to a lesser extent perhaps German cultural identity. The castle at Malbork caters for visitors from multiple countries, and ongoing development in the form of hotels and restaurants testify to its importance within European tourism. The many distinctive red brick churches of North Poland, sponsored by the Order, the Prussian Church and the colonists of the former tribal lands, continue to be used by Catholic communities. Subsequent political groups have used the history and monuments of the Prussian Crusade to justify their own actions, most famously the Nazis following the invasion of Poland. The study and exhibition of this material culture is therefore not only vital for understanding the past, but is very relevant for people in the present and for future generations.

This book is the first attempt at bringing together the material culture of medieval Prussia for the English reader, although no such work currently exists in Lithuanian, German or Russian. Łucja Okulicz-Kozaryn's (1997) monumental *Dzieje Prusów* is the only synthetic Polish work that encompasses the full

spectrum of written, archaeological and artistic sources, particularly focusing on indigenous Prussians before and after the Crusades with less emphasis on the material culture of the Teutonic Order. Her earlier work *Życie codzienne Prusów i Jaćwiegów w wiekach średnich (IX–XIII w.)* is an elegant, multi-disciplinary synthesis reconstructing the detailed *minutiae* of life in Prussia before the crusades (Okulicz-Kozaryn, 1983). Vladimir Kulakov's (2003) work is comparable, situating the Sambian Peninsula within a broader Baltic context. When dealing with the crusading period itself, Jan Powierski's (e.g. 2001, 2003) monumental works also synthesise various sources, particularly early-medieval archaeological sites alongside place names and texts. Tomasz Borowski's (2010) recent volumes on the Order's castles of Prussia and Livonia represent a desire to revise the state of existing knowledge by a new generation of scholars.

However, this book is not intended as a gazetteer, but draws on the material of pre-Christian and medieval Prussia to investigate the impact of the crusades on western Baltic culture, especially concerned with the introduction of a new, Christian society and the transformation or persistence of various aspects of indigenous society. It seeks to characterise the theocratic elite culture that came to dominate Prussian society and argues for the maintenance of a crusading ethos into the fifteenth century. In this respect holy war and colonisation are the two key themes that run throughout the book.

Given the ongoing process of archaeological excavation and analysis, and the dispersed nature of disseminating information across the south-eastern Baltic region, this book will inevitably become outdated even before its publication. Nonetheless, I hope it will provide a point of departure for future research, stimulate the meeting of different perspectives and raise international awareness of this fundamental process in the historical development of Europe, as well as provide inspiration for interested students. This volatile era, a time of incredible loss and human tragedy alongside remarkable perseverance and achievement, the wholesale replacement of one culture with another, has left a striking, visible legacy that continues to fascinate and inspire. With all of this in mind, it is very likely that future generations living in the south-eastern Baltic will increasingly move away from archaic nationalist perceptions of Prussia to something much closer to historical reality – a truly distinct and in some ways unique medieval culture, and an integral part of their heritage.

Notes

- 1 Bieszk (2010, p. 7) counts 163 fortified structures in modern Poland, with another 57 beyond Poland and 12 around the River Nemunas, with a total of 232 within former Prussia. However, this figure includes 14 sites built by private owners and other military and monastic orders, deducted from the figure listed in the text. Most scholars list 150 'castles' in medieval Prussia (e.g. Torbus, 1998).
- 2 For the purposes of this book which is aimed at an English-speaking audience, references to the Rule will follow Indrikis Sterns' (1969) translation of the *Book of the Order*, also available online at: http://www.the-orb.net/encyclop/religion/monastic/tk_rule.html (verified November 2011).

2

PRE-CHRISTIAN PRUSSIA

Early medieval Baltic society

At the turn of the thirteenth century, the region referred to as Prussia, covering an area of around 42,000km², was inhabited by a series of tribes with a pronounced militaristic culture (Okulicz-Kozaryn, 1997, p. 287). Many had violently resisted attempts to introduce Christianity for several centuries, maintaining a belief system expressed in material practices that were broadly shared by pre-Christian societies across the Baltic region. Missionary activity, gradual colonisation from neighbouring Slavic regions and occasional, unsuccessful military incursions by Polish kings and princes were eventually supplemented by a series of crusades which resulted in the conquest of Prussian tribal territories and the creation of a Christian state. For archaeologists, this episode marks the transition between prehistory and the Middle Ages, although the period between the seventh and thirteenth centuries is typically referred to as ‘early-medieval’ in Polish scholarship, and represents a time of crucial cultural transformations in neighbouring regions such as Poland and Pomerania, associated with the introduction of Christianity and the emergence of the Polish state (Buko, 2005; for a different perspective see Urbańczyk, 2000).

The Prussians have attracted extreme views. The apologists and supporters of *Drang nach Osten* have perceived them as aggressively savage and primitive. For these nineteenth- and early-twentieth-century scholars, the crusades were seen as a ‘civilising’ force not only on the Prussians, but on pagan societies throughout the eastern Baltic. In the 1970s, archaeologists began to challenge the presumed ‘inferiority’ of pre-Christian Prussian culture (Odoj, 1970/1971), with some perceiving the crusades as stifling a flourishing society. In the last four decades, the regional study of Prussian material culture and monuments has contributed significantly to our understanding of early Baltic society (Okulicz-Kozaryn, 1997), resonating with studies of Late Iron Age societies across the eastern Baltic. Archaeologists have the most to contribute to our understanding of pre-Christian Prussia; the Prussian tribes did not have a written language as far as we can tell, and most of the detailed reconstructions of their society are based on accounts written by members of the Teutonic Order or Christian commentators many decades after the events they describe.

Some have argued for largely unbroken cultural continuity from the Migration Period into the Early Medieval Period (Vélius, 1989, p. 13). The tribes occupying Prussia moved around and were influenced by incoming and neighbouring peoples. Whilst there is some evidence for consistent practices over several centuries, particularly in the re-use of the same cemetery and settlement sites and consistent ritual roles assigned to horses, the archaeological evidence for the seventh, eighth and ninth centuries is very fragmentary. In one sense, Prussian society began to transform unrecognisably over the course of the thirteenth century following the crusades. On the other hand, it had already been undergoing dramatic changes in previous centuries, partly in response to the development of new trading networks, as well as Russian incursions from the east, the expansion of the Polish state from the south and Pomeranian colonisation from the west.

Prussian archaeology has developed significantly in the second half of the twentieth century but many questions remain unanswered. Some of the most important are concerned with basic identification of Prussian material culture, the chronology of stronghold construction and abandonment, as well as the long-term impact of the crusades and the social reorganisation that followed. Relatively little is known about the organisation of settlements and territories in striking contrast to the internal structure of the later Teutonic Order's state. This chapter draws together the key evidence, topics and debates regarding the final phase of pre-Christian Prussia as a fundamental background to the tumultuous and formative events of the thirteenth century.

Etymology, language and ethnicity

The etymology of the name Prussia has been extensively debated. Its oldest recorded form is *Bruzi*, found in the ninth-century works of The Bavarian Geographer (Okulicz-Kozaryn, 1997, p. 5), whilst Wulfstan and Einhard refer to the peoples of this region as the Esti and Aisti respectively (Bojtár, 1999, p. 105), following Tacitus (*Germania* 45) who referred to its inhabitants as the *Aestiorum gentes* or Aestians/Aestii, mentioning their collection of marine amber and that:

They worship the Mother of the gods, and wear, as an emblem of this cult, the device of a wild boar, which stands them instead of armour or human protection and gives the worshipper a sense of security even among his enemies.

(Mattingly & Handford, 1970, p. 139)

This name eventually becomes specific to the Estonians and the south-east Balts become associated with various renderings of Prussia; in the tenth century as Latin *Pruzze* whilst the correspondence of St Adalbert (Polish Wojciech) refers to *Prusiae*. The antiquity of this specific name is unclear, but it has been linked to the development of a distinct social structure which then lent its name to the

region. Karaliūnas related the word to the Lithuanian *prūsti* (to flourish, thrive) and *prūsà* (education) as well as the Latvian *praustiēš* (to gain strength, increase), whilst Vēlius (1989, p. 248) suggested the appellative word was used to refer to educated and knowledgeable people, perhaps a class of ritual specialists particularly associated with the region. Early trading contacts between Slavs and Prussians in the borderlands may have led to the Prussian word *presi* or *prast* being used to refer to people who ‘understood’ the context of trading and subsequently this developed to denote the whole ethnic group (Okulicz-Kozaryn, 1997, p. 8). Written evidence for different tribal groups appears as early as the eleventh century, when Adam of Bremen refers to Semland (Bojtár, 1999, p. 157). Sambia, Samland and its derivatives were sometimes used to denote a different group to the Prussians and at other times to include Prussians in the twelfth and thirteenth centuries (Okulicz-Kozaryn, 1997, p. 8). The political and commercial importance of early-medieval Sambia may account for this conflation (see below).

The Teutonic Order perceived the various groups it conquered as all *Prussina*. Peter of Dusburg and Nicolaus of Jeroschin (*Chronicle*, III: 2; Wyszomirski & Wenta, 2004, p. 43; Fischer, 2010, p. 68) defined the region by its borders: the Vistula to the west, the Baltic Sea to the north, the Memel to the north-east and the territories of Rus’ principalities, Masovia and Dobrin, to the south and south-east. Nicolaus, following Peter, sub-divided tribal territories into eleven areas: Kulm and Lubovia, Pomesania, Pogesania, Warmia, Natangia, Sambia, Nadruvia, Scalovia, Sudovia, Galindia and Barta (*Chronicle*, III: 3; Fischer, 2010, p. 68; Bojtár, 1999, p. 156). Other sources mention Sasna, situated between Lubovia and Galindia, sub-divided between the Teutonic Order and the Polish principalities in 1240 (Figure 2.1). Within each area there were several groupings, also referred to as tribes in the literature. For example, the *Pollexiani* and *Antivingas* were sub-groups of the Sudovians (*Sudawitae*), situated on the basis of place names in the basins of the Rivers Elk and Czarna Hańcza (Nowakowski, 2003; for detailed etymological discussions of the Prussian tribes



FIGURE 2.1 Prussian tribal territories and neighbouring regions in the early-thirteenth century (aft. Biskup *et al.*, 2009)

see Bojtár, 1999; Powierski, 2003). The Sudovians of German sources are synonymous with the Jatvingians of Rus' and Polish sources, although opinion remains divided on whether this easternmost group spoke a Prussian dialect or had its own separate West Baltic language (Bojtár, 1999, p. 158).

Whilst the Teutonic Order's chroniclers described peoples associated with specific territories, they also merged these groups into a single, derogatory stereotype. The term 'Prussian' became widely used to refer to all of the Order's territories over the course of the fourteenth century, including the Kulmerland and annexed Pomerania, and the leaders of the Order began to describe themselves as the 'German Order in Prussia'; a label also used by the Papal Curia, whilst the confederation of towns in the *Ordensstaat* from 1440 referred to itself as the *Preussischer Bund*. When describing the armies of the Order, the Polish chronicler Jan Długosz referred to them as *exercitus Pruthenicus* (Biskup, 2002a, p. 141); however, Bishop Albert separated the *Prutenos* in the Order's army at Tannenberg in 1410 from *paganos*, *Prutenos videlicet, non baptizatos* (ibid., p. 142). In Polish, *Prusowie* came to denote the pre-Christian inhabitants of the region and *Prusacy* the German colonists (Okulicz-Kozaryn, 1997, p. 11). The name of the Order's territories was thus conferred onto its ethnically diverse population although internal distinctions maintained the ethnic divisions, especially between indigenous Prussians and Germans. The ethnic diversity of the Order's state in the fourteenth and fifteenth centuries is, to date, not easy to identify archaeologically, insofar as no villages occupied by the indigenous population and governed under 'Prussian Law' have been excavated, the largest number of which are documented in the Sambian diocese (Długokęcki, 2009c, p. 469; see also chapter 4).

We have some idea of what the Prussian language was like, because it survived the crusades, and continued to be spoken into the seventeenth century in German East Prussia. But in 1700, a German notation on the title page of a Prussian catechism, now housed in St Petersburg Library, stated that the Old Prussian language had completely disappeared (Sabaliauskas, 1993, p. 70). The language is recorded earlier in a fifteenth-century copy of a fourteenth-century manuscript relating to the town of Elbing (Elbląg), as well as some sixteenth-century documents, most famously Simon Grunau's *Cronica*; a detailed and popular but largely unreliable history of Prussia (Jouet, 1989, p. 19). Today, traces of the Prussian language have only survived in place names. Their number is relatively limited, largely due to their Germanisation from the thirteenth century and the subsequent Polish transliteration of these German names. In Warmia, for example, written sources from the thirteenth and fourteenth centuries record around 150 toponyms and 100 hydronyms (mainly relating to bogs and small lakes). Prussian names recorded by the Order's copyists were adapted to the German graphic-phonetic, morphologic and toponymic systems and, in the sixteenth and seventeenth centuries, they were subject to 'Polonisation' as a result of the high number of incoming Polish settlers; names of lakes were frequently transferred to settlements created in their vicinity and sometimes

the same name would be given to more than one place. However, documents reveal that traces of Old Prussian names did survive in some places up to the seventeenth century (Pospiszyłowa, 1986). Following the incorporation of East Prussia into the USSR from 1945, German place names, particularly in Sambia, were systematically replaced by Russian ones (Krickus, 2002, p. 39). Place names also changed in former eastern Prussian territories assigned to Lithuania and Poland (Chojnacki, 1946).

Population estimates for the medieval eastern Baltic are extremely difficult in the absence of detailed census data; however, the bureaucracy developed by the Teutonic Order over the course of the fourteenth century has enabled some demographic reconstruction. Variation in population density across Prussia was determined to a large extent by the nature of the topography, for example Sambia was more densely populated than wooded Sudovia (Kosman, 1976, p. 9). However, the changing density of settlements and cemeteries suggests there were two phases of Prussian expansion: from the sixth to eighth/ninth century and from the twelfth to the start of the thirteenth century. Biskup and Labuda (1986, pp. 177–178) estimated that at the end of the twelfth/start of the thirteenth century the population of Prussia numbered around 170,000. Marcelli Kosman (1976, p. 12) estimated that in the thirteenth century there were an estimated 120,000 Prussians and only around 12–15,000 Germans. In 1309, the Prussian population has been estimated at around 90,000 Prussians, with 15,000 Germans and 30,000 Poles (Biskup, 2002a, p. 133); the significant change in the ethnic composition of Prussia would take place over the course of the fourteenth and fifteenth centuries with the onset of colonisation (Ekdahl, 2004, p. 7).

Material culture, ethnicity and social structure

By the thirteenth century, the material culture of the Prussian tribes is not as distinctive as the mosaic of tribal territories suggested by the written sources. Distinct cultural groups are evident in the south-eastern Baltic area from the late-fifth/early-sixth century, predominantly identifiable by their cemeteries. The introduction of Slavic ceramic forms into Prussia proliferated in the eighth century AD, whilst Migration Period ceramic styles may have continued to be produced into the tenth to eleventh century (Wróblewski & Nowakiewicz, 2003). Early medieval Baltic/Prussian ceramics are broadly dated from the eleventh to thirteenth century and are distinct from Slavic forms (see papers in Karczewska & Karczewski, 2004). The typology of Prussian material culture, particularly ceramics, remains problematic and regional trends in stronghold construction are clearer indicators of the dynamism of local polities than artefacts. Distinctive archaeological cultures are identifiable in different regions of Prussia in the Iron Age and Migration Period but, by the Early Medieval Period, there is more regional homogeneity. Some variation in ceramic production across the various tribal regions is evident. For example, the presence

or absence of potters' stamps may suggest differences in the organisation of ceramic production. However, despite the adoption of the pottery wheel from neighbouring Slavs in the ninth century, production remained localised and hand-made vessels continue to be made into the thirteenth century (Antoniewicz, 1958, p. 157; Okulicz-Kozaryn, 1983, p. 140). In this respect, the designation of sites and material culture to named tribal groups reflects a projection from the late-medieval written sources.

The Galindians, for example, identified as *Galindai* in Classical sources, correspond with the Bogaczewska culture in the Roman Iron Age, the Olsztyńska group in the Migration Period, by an agglomeration of strongholds that appears in the Early Medieval Period and are finally documented as *Galinditae* in the sources of the Teutonic Order. The neighbouring Sudovians, whilst distinct as the 'Prudziska group' in the Migration Period, are also subsequently characterised by their agglomeration of strongholds (Nowakowski, 2003, p. 11) and between the eleventh and thirteenth centuries by their cemeteries with a 'working title of Yotvingian culture' as a means of separating it from the Migration Period Sudovian culture (Engel *et al.*, 2006, pp. 201, 205, Figure 8).¹ Today, their territory is sub-divided by north-east Poland, south-west Lithuania and the Grodno Oblast of Belarus. The Scalovians, situated to the north of Nadruvia, have been perceived by some as a separate West Baltic group on the basis of their distinct burial customs between the fifth and thirteenth centuries (Bojtár, 1999, p. 157). Moreover, the presence of a range of material culture attached to different ethnic groups at some Prussian sites causes problems. At the settlement near Ruska Wieś (site 13) situated within the documented tribal territory of Galindia, ceramics recovered from archaeological contexts represent developed Slavic forms, whilst a fragment of a fine-grained green glazed vessel, carefully fired, is perhaps more typical of late-Rus' rather than early-medieval Prussian manufacturing (Auch & Nowakiewicz, 2009), although it could also potentially be post-medieval (Karczewski, pers. comm.). In fact, the most striking differences between groups within Prussia are expressed in their cult praxis, discussed in more detail below.

In terms of the internal structure of the Prussian tribal groups, it is possible to identify archaeologically at least the two main social categories referred to by Peter of Dusburg – nobles and commoners; the latter representing a diverse range of occupations. A third group, almost invisible archaeologically and impossible to quantify from written sources, is represented by slaves of various ethnicities – Slavic, Prussian and perhaps even Scandinavian. Over the course of the thirteenth century, this group had become absorbed into the main population and was not recognised within the Order's state (Okulicz-Kozaryn, 1983, pp. 70–85; Hoffmann, 2002, pp. 11–12). In some Sambian and Pomesanian cemeteries archaeologists have uncovered graves that are not considered to be typically Prussian, interpreted as foreign merchants or (free) individuals who had been living in the local community for a time (Okulicz-Kozaryn, 1983, p. 83). In other cases, 'slave graves' have been identified by the absence of grave goods (Żulkus, 2002a, p. 194). These are intriguing hypotheses, but require

more detailed inter-regional research to substantiate. Moreover, there is no archaeological evidence for any tribal or regional leadership; instead, political organisation appears to have been based on smaller territorial units (Okulicz-Kozaryn, 1983, p. 58). In contrast to Lithuania, the ‘military democracy of the Prussian tribal federation’ did not transform into a ‘military monarchy’ and, as a result, failed to initially produce a unified response to the crusades (Bojtár, 1999, p. 151). Even if the development of a centralised government in Prussia was most pronounced amongst the Sudovians (Długokęcki, 2009a, p. 43), it was not effective at mobilising military resources against the Teutonic Order’s armies (Iwanowska, 1991, p. 685), whilst leaders representing the other tribes would briefly emerge during the Great Prussian Uprising between 1260 and 1274. The archaeological implications of this provide an interesting contrast between the early-medieval Prussian macro-regions and the centralisation of power in neighbouring Ducal Lithuania. As elsewhere in pre-Christian northern Europe, the military elite are most visible within cemeteries where they were buried in richly furnished graves (Figure 2.2). Antoniewicz (1958) and others have used the term ‘feudal’ to describe how this elite group controlled the means of production and the transport of goods, ruling over a military class that also organised the exploitation of natural resources. The concept of feudalism is problematic and its widespread, generic application to medieval European society has been criticised by scholars (Brown, 1974; Reynolds, 1994), but archaeologically a hierarchical social structure is visible and can be mapped within and between sites, albeit at a relatively low resolution.

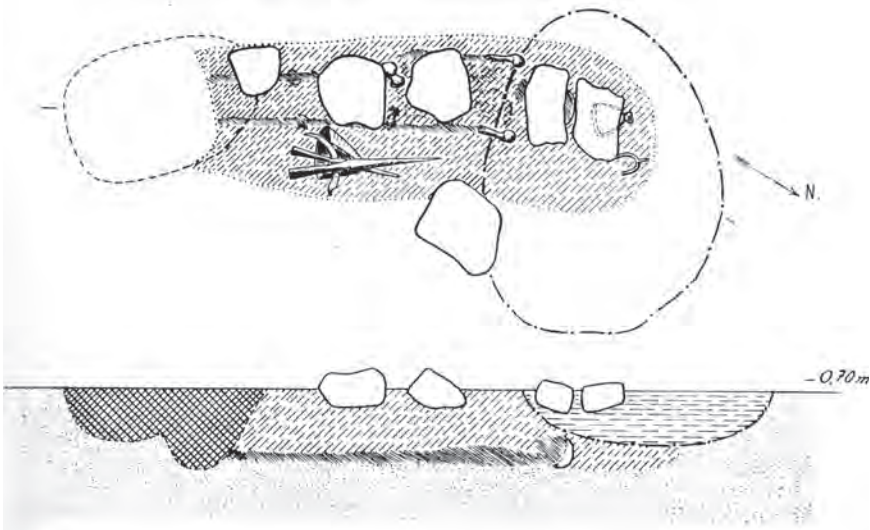


FIGURE 2.2 A Prussian grave furnished with military equipment from Ekritten, Sambia (Kaliningrad Oblast) (aft. La Baume, 1940, p. 84)



(a)



(b)



(c)

FIGURE 2.3 Three views of the Prussian stronghold at Ostrów in Masuria, demonstrating in particular its strategic location within the landscape; (c) is the north facing view from the top of the stronghold showing Lake Wylewy, in close proximity to Lake Orzysz. The stronghold is associated with the Sudovian tribe

Strongholds and settlements

The political landscape of tribal Prussia was defined by fortified strongholds, named in Slavic languages as *gród*, *gorod*, *gard* and *hrad* (Kuczkowski, 2008). Prussian *grody* were similar to those in neighbouring Masovia, Kuyavia and Lithuania (Figure 2.3). A ringwork of earthen embankments enclosed the settlement area, sometimes strengthened with timbers, ranging from 6–20m wide and 4–8m high. Before the embankment were stone or timber-earth constructions, with sharpened stakes beaten into the ground facing outwards (Kochański, 2001, p. 467). A settlement was usually situated next to the stronghold, although these so-called *podgródzie* have not been identified at all sites. In a broader landscape context Prussian strongholds were associated with a string of settlements in much the same way as in neighbouring Slavic regions. These have not been investigated in much detail and, as such, their definition remains very vague: the term ‘settlement’ is synonymous with ‘village’ and although they varied in character, i.e. some are described as open or unfortified (without a fortified perimeter) and others were protected by defensive embankments, palisades and ditches, there is no detailed understanding of how they related to each other in the Early Medieval Period (Żulkus, 2002a, p. 171). An exceptional macro-regional study of these has been conducted around Lake Salęt in Masuria (see below). The appearance of strongholds in regions such as Galindia during the Viking Age has been interpreted by some as inspired by Slavic culture to the south and, in turn, prompted the development of social stratification that resulted in elite Prussian residences referred to as ‘high houses’ (Nowakiewicz, 2006, p. 168).

A diagnostic settlement pattern was already evident in the south-eastern Baltic by the Bronze Age. Settlement was clustered particularly on the Sambian Peninsula, on either side of the Masurian Lake District and around the Vistula Delta and Lagoon (Długokęcki, 2009a, pp. 27–32); although this distribution also coincides with the regional preferences of Prussian settlement studies in the twentieth century (Nowakiewicz, 2010, pp. 487, note 1). The archaeologically documented strongholds of Prussia were almost certainly organised in relation to the basic territorial unit referred to as the *pulko* (Latin *territorium*; Russian *vlost*; Polish *włość*), which varied in size and had an estimated population of around a thousand inhabitants (Łowmiański, 1985, p. 63). Various interpretations of *pulko* and other sub-divisions such as *lauks*, defined by Gerard Labuda and Marian Biskup (1986, pp. 71–72) as the economic hinterland of the *pulko*, have been suggested by historians focusing on different regions of Prussia based on later sources (reviewed in Nowakiewicz, 2010). These Prussian words have survived in place names, for example *lauks* was rendered into German as *lauken* or *lack* and, after 1945, these toponyms were re-named in Polish as *ławki*, with the aim of preserving the earlier Prussian names (e.g. Bezławki, Paławki; Okulicz-Kozaryn, 1983, p. 103).

It has been difficult to align this later projection with the archaeology of the pre-Crusade period and virtually impossible to synchronise the archaeology

of Prussian sites with details of individual families, farms and related activities drawn from Peter of Dusburg's *Chronicle* and what can be described as early ethnographies from the seventeenth century (as synthesised in the work of Łucja Okulicz-Kozaryn and Mirosław Hoffmann). Nonetheless, it has been possible to document the internal complexity of Prussian settlements, which contained buildings largely constructed from timber, sometimes with stone foundations. Some of these have been excavated, but more have been identified through systematic field walking as part of the AZP programme. Settlement sites are relatively small – on average around half a hectare or less – and they are typically dispersed within the landscape rather than forming connected chains or agglomerations. These sites have been interpreted as representing the farms of individual families, which the written sources suggest could be quite large, in addition to any slaves. Within, the range of buildings varies in size from 8–9m² through to 30m². When excavated these include rectangular structures marked by post holes with sunken floors which are filled with stained soil representing collapsed, decaying timber walls with fragments of dry clay, mixed in with broken ceramic fragments, plant macro-fossils, animal bones, fish scales and nut shells. The remains of a stone hearth, usually circular in shape, are often sunken into the floor. A second type of building was constructed at ground level, often with sand or stone preparations separating the floor from the soil underneath, with a line of holes marking timber posts supporting the walls and roof of a 'lafted' structure; in Sambia these buildings had high porches made from field stones. The third type of building identified at these sites was made from a timber superstructure, sealed with moss and with its exterior surfaces covered in clay. These have been found most often in Galindia. Additional variants include wooden platforms constructed above the ground or over lakes upon which dwellings were built, perhaps as fishing huts; these are typically prehistoric although early-medieval examples have been found at Szymonka (Giżycko County). The interiors of these buildings must have included a range of wooden furniture but this rarely survives; exceptions include a fragment of a chest excavated at the stronghold in Susz (western edge of the Warmian-Masurian voivodeship). Other buildings may have functioned as granaries and stables (*ibid.*, pp. 101, 106–108), whilst pits were dug for storing grain and other food stuffs, as well as for refuse. One of the most important Prussian buildings was the bath house which was either round, oval, square or triangular in form and typically a sunken building covered with a roof resting on the ground. The floor was lined with tightly packed field stones and the stove was situated in the corner. Different types of buildings have been interpreted in terms of socio-economic status but, until further excavations are published, it is at the broader scale of macro-regions that early-medieval Prussian society can perhaps best be understood.

Both historians and archaeologists agree on the concept of a hierarchy of settlements, the nuances of which varied from one tribal territory to the next but which, in the south-eastern Baltic, were shared by Prussians, Curonians and

Semigallians (Žulkus, 2002a, p. 194). The settlements formed regional clusters associated with strongholds, often interpreted as a cohesive territorial unit. The specific locations of the tribal centres appear to be related to topographic factors and in this respect sites must have been carefully chosen with respect to both the physical and conceptual (i.e. political, administrative) landscape. Given the continued occupation or reoccupation of a number of sites over many centuries, there may even have been a conscious maintenance of historical memory in the organisation of settlement. This is most evident in the re-use of stronghold sites (Łapo, 1998, p. 203). Detailed studies of Prussian settlement macro-regions are limited, but some broader trends have been identified indicating shifts in Prussian society in the centuries leading up to the crusades.

West Prussia

The group of strongholds in the Elbląg region, corresponding to tribal Pogesania, appear to have been built in two phases: in the eighth to ninth century and reorganised in the eleventh to thirteenth century. Prussian settlements shifted in the sixth century west of the River Pasłęka and proliferated on the Elbląg upland around Truso (Janów Pomorski), which would emerge in the ninth century as one of a series of North European coastal trading centres (Figure 2.4). Truso's impact was widely felt; finds of Arabic dirhems from the Vistula Delta to Barta are dated to the ninth century, pointing to trade networks extending throughout the interior and borderlands of Prussia (Powierski, 2001, p. 193). With the abandonment of Truso, regional trading may have been redirected through the nearby Pruski Targ (Długokęcki, 2009a, p. 47). The nature of the Prussian coastline restricted the growth of any significant settlements and communication networks, except in Sambia, where the highest density of Prussian settlement has been suggested (Antoniewicz, 1958). The second phase of settlement in this area is associated with Prussian expansion and colonisation, particularly in the west and south-west. The largest fortified complex in the Elbląg upland has been found just north of the village of Weklisce (also nearby is the site of an earlier Gothic cemetery), consisting of four strongholds located in close proximity to each other. Occupied from the twelfth to mid-thirteenth century these represented a unified defensive system focused on the most extensively fortified stronghold (site 2), situated on the highest ground and almost certainly the central point of political organisation within the region. These were not exclusively military structures, as there was evidence for multiple, industrial provisioning and trade activities associated with the complex. These structures referred to as *castrum Weklitze* characterise complex, multi-functional sites that demonstrate variability across Prussia and clearly reflect local regional nuances.

The pattern of a central stronghold, sentinel mounds serving a protective, military function with no evidence for sustained occupation and open settlements, is one that is replicated in other regions of Prussia. The distribution of strongholds

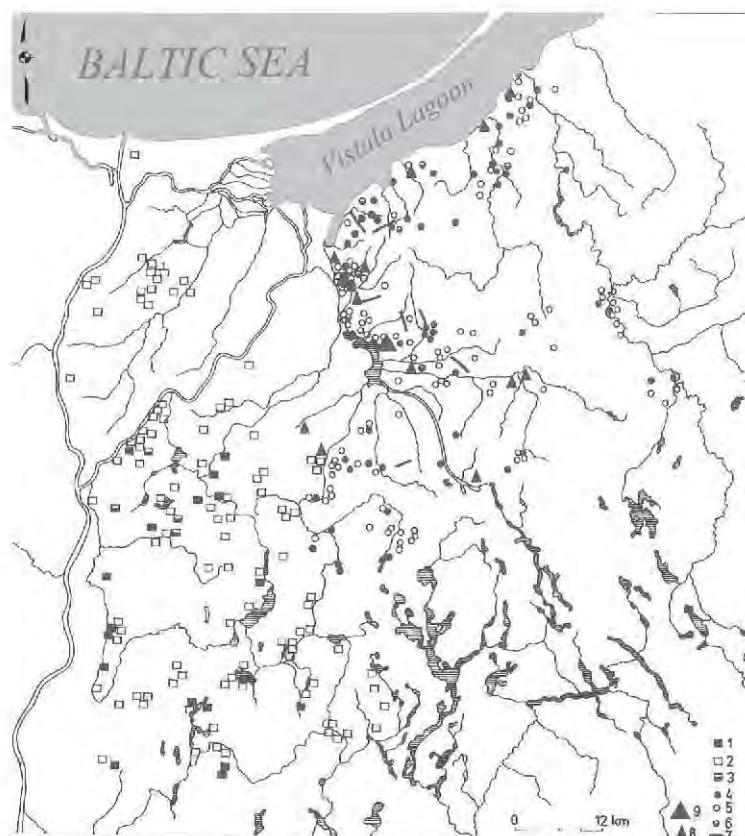


FIGURE 2.4 Prussian, Slavic and Scandinavian settlement between the Vistula and Pasłęka (north-central Poland) from the ninth to eleventh century AD. This multi-ethnic landscape has been labelled as *Terra Pacifica* – the Land of Peace – in stark contrast to the subsequent era of hostility and holy war. Key: 1: Slavic strongholds; 2: Slavic settlements; 3: Slavic cemeteries; 4: Prussian strongholds; 5: Prussian settlements; 6: Prussian cemeteries; 7: Long, defensive embankments; 8: Traces of Scandinavian settlement; 9: Truso (Jagodziński, 2004b, p. 38)

in early-medieval Warmia also consisted of clusters around major rivers and, in the eastern part, lakes (Długokęcki, 2009a, p. 39). In Sasna, a less densely occupied regional settlement was focused around one of the main regional strongholds at Zajęczki (associated with Sassenpils – i.e. the stronghold of the Sasens), with the AZP's field survey indicating intense occupation from various periods within its vicinity, including the tenth to potentially fourteenth century (Skrobot, 2007, pp. 116–117). The stronghold at Kamionce (German Kesselberg) was located on an island in Lake Silm, where an eleventh-century Arabic dirhem was discovered along with evidence for intensive settlement in the nearby vicinity (ibid., p. 119). Other strongholds appear as formidable earthworks in the landscape but little is

known of their function or associated settlement. They include Pogańską Górą at Domkowo and the strongholds at Grazymy, Ornowo and Kajkowo where evidence for occupation ends in the thirteenth century (Hoffmann & Mackiewicz, 2004). Excavations on the site of the Order's castle at Dzierżoń (Christburg) uncovered the remains of a burnt wooden tower dating to the second decade of the eleventh century, mostly likely part of a stronghold complex associated with the Pomesanian tribe. Its destruction may have been linked to the documented incursions of Polish armies (Pawłowski, 2003, p. 414). Systems of embankments beyond the strongholds appear to be a feature of early-medieval Prussian settlement, as on the border between Sasna and Pomesania around Jeziorak (the Iława lakeland in Warmia-Masuria) although the dating of these structures remains unclear and awaits archaeological investigation. Indeed, embankments found across Prussia of varying sizes which may have functioned as territorial markers during the Prussian period or within the Order's state require excavation and further analysis to ascertain their chronology (Łapo, 1998, p. 204). Compared to the Elbląg area and Warmia, the chronological resolution of settlement in these south-western Prussian territories remains poorly defined. The Kulmerland and Pomesania effectively represent borderlands with Slavic territories and are discussed in more detail towards the end of this chapter.

East Prussia

Further east, there are similar trends with varying chronologies attesting unstable political structures between the tenth and thirteenth centuries. The landscape of eastern Prussia, represented by the territories of Natangia, Galindia, Barta, Nadruvia and Sudovia, was dominated by extensive woods and wetlands (see also chapter 7), promoting a dispersed settlement pattern developing during the Migration Period or Late Migration Period. A significant part of this region lies in the Masurian Lake District, where bodies of water consist of long, narrow troughs separated by densely forested elevations of moraine, unsuitable for agriculture (Nowakiewicz, 2010). As a result, settlement has tended to cluster around the shorelines of lakes and river floodplains, with some key strongholds situated within passes between the largest lakes (Kielczewska-Zaleska, 1950).

Perhaps the best example of such a cluster has been investigated in the vicinity of Lake Sałęt within the former tribal territory of Galindia, where the distribution of sites changed in the latter centuries of the first millennium AD. The centre of this cluster was the ring fort and associated open settlement at Szestno-Czarny Las (site 3). The site, which was probably occupied from the tenth century, was associated with a specific type of burial (see below), whilst existing pottery traditions continued. This stronghold was occupied into the eleventh century and supported by a network of smaller settlements, communicating with each other through waterways, particularly Lake Sałęt (Figure 2.5). Its territory was defined by a series of smaller strongholds with little evidence for occupation and no identified dwelling structures, suggesting they functioned as sentinel ringworks. The northernmost chain of these structures corresponds to

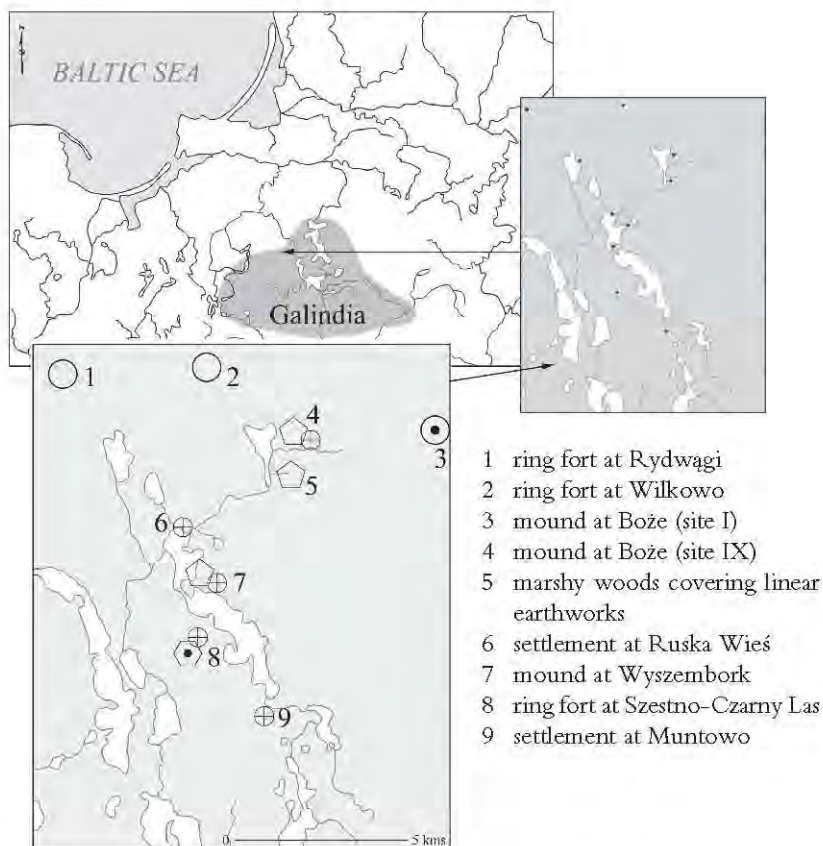


FIGURE 2.5 The early-medieval settlement complex around Lake Salet (redrawn after Nowakiewicz, 2010, pp. 493, 495)

the border between Galindia and Barta, perhaps representing a state of hostility between these tribal groups during the time of their construction. The presence of linear earthworks extending east–west within wooded and marshy terrain in close proximity to these mounds may have been intended to protect settlements or define territory, although their chronology remains ambiguous. Social and military organisation beyond the central stronghold was focused on mound sites, referred to as ‘high houses’, interpreted as residences of the Prussian nobility (Nowakiewicz, 2010). In some cases, as at Boże (site 1), these were attached to an open settlement, elsewhere, as at Wyszembork, they are defined by a more commercial character. Their prominence in the landscape can also be linked to their strategic role in the definition of tribal territory; in the case of Lake Salet they are situated close to the Barta border.

The stronghold at Szestno-Czarny Las lay at the centre of an international trade network, as suggested by the diversity of finds from Scandinavia, Ruthenia,

Slavic regions and the Near East. Extensive numbers of iron Thor's hammers point to the presence of Scandinavians, perhaps functioning as mercenaries for the Prussian aristocracy (Wróblewski *et al.*, 2003). In seeking to rationalise later written descriptions of Prussian territorial organisation, Nowakiewicz (2010, p. 497) has tentatively characterised the entire settlement complex around Lake Sałęt as a *pulko*. Moreover, the grouping of military structures close to borderlands, rather than at their centre, is a trend that is noted elsewhere in the early-medieval Baltic. Indeed, the archaeology of Prussian settlements is best understood at a regional level. In the tribal territory of Natangia, in the vicinity of Grundfeld, four strongholds protected an area that included a 'sacred stone' and the trading centre at Gerkin, which also appears to have functioned as an assembly site. The intensive settlement from this region is confirmed by at least five cemeteries and settlements at Czapajewo and Görken (Hoffmann, 1999, p. 8).

East of Szestno-Czarny Las, one of the most striking Galindian sites is situated 900m east of the village of Jeziorko (Figure 2.6) (Antoniewicz, 1950b). The stronghold is located on a morainic hill, with plains stretching to the north and south, and in close proximity to two narrow lake passes near Giżycko and Rydzewo. The settlement was semi-oval in shape and extended from the eastern side of stronghold up to a dale in the north. Ceramic dating indicated occupation during the Bronze Age, the Hallstatt period and finally from the tenth to twelfth and possibly into the mid-thirteenth century AD. A range of environmental data was recovered suggesting oak, hornbeam and other trees were exploited for building material and fuel; the pastoral economy of the settlement relied on livestock and several types of wheat were processed on site. The large number of butchered horn and bone fragments also indicated



FIGURE 2.6 The Prussian stronghold at Jeziorko, Masuria, associated with the Galindian tribe

the presence of a specialised workshop. The settlement was protected by an embankment and palisade and next to the stronghold was an attached bailey which may have functioned into the thirteenth century, a rarely encountered example in Prussia (Białuński, 1996, p. 20), although this is likely to reflect the constraints of excavations. Jeziorko, also the subject of recent archaeological investigation, represents an interesting case study of a Galindian stronghold and its adjacent settlement which may have endured into the crusading period.

The settlement network in Galindia appears to have generally declined in the mid-eleventh century, so that by the twelfth century the absence of comparable strongholds in this region suggests the disintegration of strong political structures *before* the coming of the crusaders (Nowakiewicz, 2010, p. 492). This collapse coincides with the documented devastation of the war ending in 1047, which saw the re-incorporation of Masovia (allied with the Galindians) into the Polish state. Its impact was so traumatic that it appears to have been preserved in the oral culture of Galindia, and was subsequently noted down by Peter of Dusburg as an earlier war against neighbouring Christians that had left the land completely desolate (Nowakiewicz & Wróblewski, 2003). In fact, the region was not completely abandoned. The settlement at Ruska Wieś (site 13), situated on the eastern banks of Lake Salet and part of the North Galindian complex, was potentially occupied into the thirteenth and fourteenth centuries (Auch & Nowakiewicz, 2009). Further east, palaeobotanical data suggests human impact on local vegetation continued throughout the Early Medieval Period and the construction of castles would have required a pool of local labour, not necessarily incoming colonists (Karczewski, pers. comm.). Peter of Dusburg described Galindia as 'desolate' when crusading armies arrived (*Chronicle*, III: 4; Wyszomirski & Wenta, 2004, pp. 44–45), but this is likely to be comparative with neighbouring regions such as the Vistula fenlands which had extensive settlement into the thirteenth century. Indeed, Antoniewicz (1950b, p. 253) has argued on the basis of archaeological data at sites such as Jeziorko that Peter's reference to Galindia as a wilderness dates from the 1320s, in other words after the crusades. At the stronghold of Święta Góra overlooking Lake Wojnowo, excavations recovered numerous animal bones, plant remains and ceramics from the Early Medieval Period, the Early Iron Age and the Migration Period, as well as a glass bead datable to the late-ninth to twelfth century (Karczewska & Karczewski, 2007, p. 144). Recent excavations in 2011 by Maciej Karczewski, Małgorzata Karczewska and Aleks Pluskowski at the stronghold also identified evidence of occupation into the late-medieval period (Figure 2.7). The extent and character of human activity in twelfth- to thirteenth-century Galindia and other regions of eastern Prussia will be clarified with future excavations and palaeoenvironmental studies. In neighbouring Barta, a similar pattern is evident. Central strongholds such as the one at Bezlawki, contemporary with the Galindian complex around Lake Salet, were part of complexes with sentinel mounds, although the persistence of the military power in this region into the thirteenth century is suggested



FIGURE 2.7 Excavations of multi-period pits within the stronghold of Święta Góra, Masuria, in 2011

by later Teutonic Order and Rus' sources despite the limited archaeological evidence (Nowakiewicz, 2010, p. 494, note 43).

Further east the political organisation of Sudovia is represented by around 50 identified strongholds which are assumed to date from the seventh to thirteenth century, although the overwhelming majority have not been investigated archaeologically (Iwanowska, 1991, p. 685). One of the most intensely studied is located at Jegliniec near the modern Polish–Lithuanian border. It was first constructed during the Late Roman Period on the summit of a moraine elevation, in a landscape of fens and peat bogs. With its sheltered location and stone-lined ramparts enclosing an area of around 800m², the structure has been interpreted as a refuge for the community occupying the settlement at its base. A rich assemblage of ceramics, metalwork and animal bone was recovered, including a medallion decorated with images of St George and St Basil dating to the second half of the eleventh to the twelfth century and crosses originating from Ruthenia and Latvia and dating to the eleventh to thirteenth century. No evidence of metal casting was discovered at the stronghold, although a deposit of 765 bronze objects, including large quantities of a specific pendant, almost certainly belonged to an itinerant bronze smith (Iwanowska, 1991). The uniqueness of the artefact assemblage suggest the stronghold at Jegliniec was a well-connected central place and trading hub in Sudovia, bordered by Masovia to the south, Rus' lands to the south-east and Lithuania to the north-east. It also formed the central part of a settlement complex that is considered typical for this region. Whilst it was previously assumed to represent the last stronghold conquered by the Teutonic Order, no evidence for the presence of crusading armies has been found at the site to date (Iwanowska, pers. comm.).

Sambia: a regional centre of power

The Sambian Peninsula is dissected by many rivers providing easy access to the sea and to the Vistula and Curonian Lagoons. It was perhaps the most densely settled region of Prussia, as rescue excavations are continuing to demonstrate (Kulakov, 2003), with around 15 estimated inhabitants per km² (Żulkus, 2002a, p. 171). This concentration of human occupation prompted the development of Sambia into a major power centre in the early-medieval

eastern Baltic. Political organisation on the peninsula is represented by 90 identified strongholds of varying shapes and sizes with a range of associated ditches and embankments (Figure 2.8), although no landscape studies have sought to define the extent of their territories and the majority have not been investigated archaeologically. Only a small number have been dated to the Iron Age and the crusading period (for a comprehensive catalogue and discussion see Wendt, 2011). Strongholds were located strategically and excavations hint at their organisational role in production, agriculture and trade. At Graiaczowka, the settlement was situated on a headland, separated from the east by a stream and from the north and south by a deep ravine. The enclosure within the stronghold was separated from another area by an embankment and dry moat. The cultural layer within the enclosure indicated continuous occupation, and the embankments were constructed at the same time as the upper 'Prussian' layer. In the western area were clusters of stones, most likely the remains of a building. In this area of the settlement there were concentrations of wheat grains and several fragments of raw amber, as well as fragments of pugging (Hoffmann, 2002, p. 9).

However, most information on Sambia before the crusades has come from the emporium and associated cemetery of Wiskiauten (Mochovoe, also known as Kaup), the subject of excavations for over a century, initiated by German archaeologists in 1865 (Kulakov, 2005; Ibsen, 2005; see also www.wiskiauten.eu). The cemetery consists of over 500 burial mounds with cremation and inhumation burials dating from the ninth to eleventh century, contrasting with the otherwise 'flat' cremation grave cemeteries characterising early-medieval Prussia and, coupled with the abundance of Scandinavian material culture, points to a multi-cultural complex similar to Truso. Nearby is a Prussian cemetery dating from the eleventh to twelfth century, whilst settlement activity has been mapped through geophysics and surface finds in five zones with chronological ranges spanning from the seventh to twelfth/thirteenth century. Excavations in Sambian cemeteries from the nineteenth century have revealed extremely wealthy graves from the Early Medieval Period, particularly



FIGURE 2.8 The distribution of strongholds in the Kaliningrad Oblast (Sambian Peninsula) (aft. Wendt, 2011)

when compared with the rest of Prussia and interpreted as reflecting a level of prosperity linked to the export of raw materials across the Baltic through the network of emporia. This increased purchasing power made the large-scale import of certain objects, such as armour and spindle whorls, possible and cheaper (Antoniewicz, 1955). However, Wiskiauten is also indicative of Sambian control over trade routes along the Curonian Lagoon, superseding earlier centres by the Rivers Pregel and Nemunas (Žulkus, 2006, p. 22). At Ekritten, close to Wiskiauten and probably functionally related in the tenth century, two cemeteries and a stronghold have been identified – the latter is one of the largest of its type in Sambia. The cemeteries contain cremation burials with predominantly militaristic male grave goods, with the most richly furnished grave containing, amongst other things, a Rus' helmet and equestrian equipment, with the individual interpreted as one of the leading *nobiles* of the settlement. The cemetery is not exclusively a military one and the presence of merchants or goldsmiths is implied by four sets of weighing scales which had been deposited in burials (Antoniewicz, 1958, pp. 141–142).

Indeed, over 97 scales have been found on Sambian sites, both cemeteries and settlements dating from the eleventh to twelfth century, attesting to the significance and level of trade developed within this region. The distribution of these scales and weights beyond the main emporia have been interpreted as being used in transactions between merchants and local producers, evidence of the local networks supporting international trade. A monetary system was not operating and given the limited finds of imported coins in comparison to southern Scandinavia and Pomerania, it seems that the most culturally relevant form of currency was in the form of raw materials (*ibid.*, pp. 147–149). Although the centre at Wiskiauten was abandoned following the withdrawal of the Scandinavian community by the early-eleventh century (Žulkus, 2006, p. 22), sporadic references to trading centres (e.g. *Forum pruthenicum* near Medenau referred to in 1326) suggest the maintenance of regional commerce into the crusading period (Długokęcki, 2009a, p. 47). Half-way up the Curonian Spit, a late-tenth- to early-eleventh-century settlement was discovered amongst the coastal dunes at Korralen-Berg, near the village of Rybachy. However, during the eleventh and twelfth centuries, it appears that the Sambian sphere of influence in the north shrank and that of the Curonians became more pronounced, especially in connection with Middle Lithuania (Žulkus, 2006, p. 23). In southern Sambia, excavations around Kaliningrad uncovered at least two cemeteries dating to the early-eleventh century, the best known at Gross Friedrichsberg. The military retinues buried in these cemeteries have been linked to the political control of the trading complex of Tuwangste, a stronghold and open settlement overlooking the River Pregolya which also had a multi-cultural character suggested by Scandinavian, Slavic and Prussian material culture identified in the associated cemeteries (Kulakov, 1999, p. 157). Sambia stands out as arguably one of the most important regions of pre-Christian Prussia yet paradoxically it is one of the least well known archaeologically.

By the thirteenth century the settlement pattern in Prussia is clustered around the Vistula Lagoon, the north-eastern Polish lakelands and Sambia. Within these regions, it is possible to sketch the distribution of strongholds and associated settlement clusters on the basis of archaeological sources, although the dating of many sites remains vague or unconfirmed (see Długokęcki, 2009a, maps 3a, 3b). The frontiers with Pomerania and the Kulmerland were areas of active expansion and incursions, whilst the border with Masovia appears to have been maintained by significant belts of woodland, with open areas marked by chains of embankments. Prussian settlements practised localised agriculture, which included the clearing of woodland, the maintenance of arable land, hunting and animal husbandry, particularly cattle (see also chapter 7). Hence, several factors determined the distribution of Prussian settlement: access to water, particularly for communication and the layout of regional and international trade routes, shelter, provisioning opportunities and the relationship with neighbouring territories. The prosperity required to invest in such complexes can be related to the significance of trade, which included political control over the procurement of raw materials, manufacturing and the distribution of luxury commodities – particularly amber – that reached markets far beyond the south-eastern Baltic.

The trade in luxuries and craft specialisation

The placement of key strongholds in proximity to major communication routes points to strategic links between political organisation and trade in Prussia (Długokęcki, 2009a, p. 49). Prussian central places were extremely well connected, as consistently demonstrated by the diverse provenance of finds recovered from stronghold sites as well as hoards (Wróblewski *et al.*, 2003, p. 168). The movement of products would have required a suitable provisioning network and the extensive waterways of Prussia facilitated excellent communications across the region, enabling southern groups such as the Galindians to reach the Baltic coast without disembarking. The Prussians were actively involved in maritime trade along the southern Baltic coast, taking their wares to key trading centres such as Gdańsk, Wolin and further west. A 12m-long boat was discovered in the River Dzierzgoń, with its relatively flat hull best suited to sailing in rivers and coastal waters. A second Prussian boat was found in Frombork, identified as a war ship and indicative of a broad maritime technological capability; both examples differ from their Scandinavian equivalents (Okulicz-Kozaryn, 1997, p. 290).

The western Balts – particularly the Prussians and Curonians – developed extensive trading contacts with Scandinavians, and even adopted the Scandinavian measurement system (Žulkus, 2002a, p. 196). The character of Prussian trade as suggested by Truso and Wiskiauten was driven by the provision of luxuries for export, particularly amber and fur. The latter is poorly represented in the archaeological record whilst raw and worked amber is found

across the south-eastern Baltic region. The largest quantities of amber were found in Sambia and its role as a luxury product is evident from at least the Migration Period. Trading networks extending from the Baltic coast throughout the Prussian mainland are suggested by the presence of amber in Prussian settlements and graves; however, much was procured for long-distance trade. Bog iron could be extracted from the marshes and swamps of Prussia, especially in the southern stretches of the lakelands (Okulicz-Kozaryn, 1983, p. 33), but metals (and metal artefacts) were more often imported, for example, bronze from Rus' lands, Scandinavia or western Europe which, in turn, was fashioned by local artisans into a diverse range of ornamental jewellery (Antoniewicz, 1958, p. 153). Written sources suggest the trade in slaves, especially young women, across the Baltic and down to the Black Sea must have been significant, but archaeological evidence for these people at the Prussian emporia remains intangible (Okulicz-Kozaryn, 1983, p. 91). There is even less evidence for any export of agricultural produce or fish.

Artefacts, from jewellery through to weapons and armour, were also imported. There was a particularly strong trade with Rus' regions from the eleventh century; imports included bronze mace heads and pendants, glass and semi-precious stone beads, equestrian equipment, as well as grain and salt. Trade was dangerous and written sources indicate armed men accompanied merchants on their journeys (Okulicz-Kozaryn, 1997, pp. 293–295); as elsewhere in the Baltic, trade was almost certainly shadowed by piracy. Prussians also traded with Pomeranians, particularly for horses, although the character of the horse trade and its effect on Prussian stocks could be explored in more detail through zooarchaeological studies. The early-medieval multi-cultural emporia of Truso and Wiskiauten are superseded by central places in the second millennium AD, such as Szestno-Czarny Las, Jeziorko and Jegliniec. These become important producers and consumers. The likely presence of a horn and bone workshop at Jeziorko indicates that specialist artisans were operating at central tribal complexes in much the same way as within the emporia. Excavations at the site also recovered two clay loom weights; another was found in Płociczno near Elk. The limited number of these finds as well as their chronological context suggests a late start to the development of weaving in Prussia, although amber loom weights have been recovered from earlier contexts in Curonia and Samogitia. In the late 1950s, the cemetery at Równina Dolna near Kętrzyn, dating to the thirteenth and fourteenth centuries, included fragments of high quality textile. This could represent the beginning of specialised weaving in Prussia or the gradual proliferation of this process within the Order's state (Antoniewicz, 1958, p. 150). The rich artefactual assemblage from Jegliniec provides more detailed evidence of a centre with connections producing and transmitting ornaments beyond its territory to neighbouring Prussian and Slavic regions (Iwanowska & Niemyjska, 2004, p. 106).

Much of the evidence for international trade in Prussia comes from the Viking Age, and whilst the persistence of long-distance contacts in the twelfth

and thirteenth centuries is evident at sites such as Jegliniec, tentative evidence for later trading centres is most readily associated with Sambia. But by the thirteenth century, imported artefacts at Prussian sites are relatively unusual compared to their abundance in the Viking Age; exceptional examples include the hoard of silver ornaments from Sudovian Skomętno (Warmian-Masurian voivodeship) (Iwanowska & Niemyjska, 2004). In contrast, the military activities of the Prussians, especially from the twelfth century, are more visible archaeologically.

Militarism

The militaristic nature of Prussian society is reinforced by the inclusion of arms and armour as grave goods within male burials; indeed the majority of these types of finds have been recovered from cemeteries. Much work has focused on typologising the different types of weapons (e.g. for Baltic swords see Kazakevičius, 1996) and loose weapon finds tend to be datable at the earliest to the ninth century, and more typically to the tenth and eleventh centuries (Kittel, 2002, p. 184). Prussian society had developed a structured militaristic culture by the sixth to eighth century comparable to other regions of Europe, when evidence from weapon burials (predominantly consisting of small blades referred to as seaxes, with no surviving armour) suggests the existence of warfare organised by an equestrian elite class (Kittel, 2002). By the eleventh century, warrior burials included swords, scabbard fittings, knives, axes and spearheads (Żulkus, 2002a, p. 194). The relationship between the elite class and trade prompted Antoniewicz (1958, p. 158) to suggest that Prussian militarism developed to protect trade routes, merchants and trading centres; the defensive and organisational roles of strongholds have already been referred to. Given the current chronological resolution of early-medieval Prussian sites, it is difficult to verify whether raiding on Slavic lands from the 1160s was motivated by an increasingly powerful aristocratic class seeking to enrich itself further (Śliwiński, 2004, p. 56). However, this trend continued into the early decades of the thirteenth century and contrasts with the political situation during the Viking Age (see also chapter 3).

It was traditionally believed that Prussian weapon production was relatively small scale, and that most weapons were imports. Finds of arms and armour have included examples of Carolingian, Scandinavian, Rus', Avar, Polish and Baltic origin. Indeed, evidence for metalworking at Prussian sites is relatively limited; an exceptional example is an eleventh-century mould from Barczewko. However, there is evidence for the mass production of wooden sword scabbards which were covered with leather and finished at the base with an iron fitting shaped as a stylised palm – a motif adopted from the Rus' principalities (Antoniewicz, 1958, p. 151). At the same time, bronze scabbard ends found in Pomerania, Warmia and Masuria were most likely brought in from neighbouring regions such as Scandinavia and Lithuania (Janowski, 2007). Examples

of arms become more diverse from the ninth century, when Carolingian and German influences are evident, as well as contacts with Scandinavian, Polish, Rus' and Eurasian nomadic groups. Between the ninth and twelfth centuries finds of swords, stirrups, saddles, spurs and helmets, which appear to be prestige items, point to the presence of an elite equestrian class. This group was already established in the Early Roman Period in Prussia and neighbouring regions; in Greater Poland this can be associated with the Przeworsk Culture (Kontny, 2009); in Prussian lands it is evident in the Bogaczevo Culture of Masuria, as well as Sudovia (Nowakowski, 2009) and later with the Elbląg group at Nowinka. In Sambia, the consolidation of an equestrian class in the fifth century has been linked to the developing tribal structure (Skvortsov, 2009). The development of regional equestrian classes can be linked to trends in the ritual killing and burial of horses which persist – in various forms – in several regions of Prussia into the thirteenth century, but which are centralised in Lithuania (see below). A particularly rich assemblage of weapons has been recovered from the vicinity of Elbląg, along the River Dzierzgoń, Lake Drużno and the River Elbląg, and includes five examples of swords, three axes and a number of arrowheads. These could represent traces of a communication or military route, corresponding with the period of conflicts between the Pomeranians and Prussians (Kittel, 2002).

In the early centuries of the second millennium, the latest European trends in arms reached Prussia. In fact, in the tenth to thirteenth century, there appears to be more diversity in Prussian forms of weaponry than in contemporary Polish armies, although this could also reflect the relative archaeological recoveries in both regions. The use of axes, for example, has a small chronological and regional distribution, but it goes some way to explain why the Prussians were a significant military threat to neighbouring regions, and why their incursions into the territories of the Duke of Masovia ultimately prompted such organised repercussions. The Prussian elites were armed in a comparable way to the Polish elite, and perhaps even the knights of the Teutonic Order. Peter of Dusburg described the Prussian nobility as proud, well trained and not badly armed (*ibid.*). By the thirteenth century, Prussian groups were able to match the military strength of neighbouring Poland and Pomerania; written sources refer to numerous successful raids for capturing slaves, as well as failed Polish incursions. Prussian tribes adapted to their experiences of the Teutonic Order, adopting new methods of warfare and new arms. However, the Order's discipline and its use of crossbows and war horses was gradually decisive (Ekdahl, 1998). The tribal militarism of pagan Prussian society was superseded by the institutionalised militarism of the Teutonic Order's state, which also saw the replacement of one elite equestrian class with another. The establishment of Christianity broke the link between the social and sacral role of the horse, which in itself hints at a religious dimension to warfare and military organisation in pre-Christian Prussia. Unfortunately, in contrast to Scandinavia where this topic has been explored in some detail in recent years (e.g. Price,

2002), there is simply not enough information available to investigate how the Prussians had conceptualised warfare before the crusades.

Religion: the key to understanding diversity within pre-Christian Prussia?

The religious beliefs of the indigenous Prussian population were at the heart of the justification for the wars of Polish rulers and the Teutonic Order. Christians documenting the spirituality of the Prussian tribes have left us with fragmentary, confused and stereotyped accounts. Before considering the archaeological evidence for pre-Christian cult in Prussia, it is useful to outline some of the models of religion constructed by historians. These have been disseminated far more successfully than any interpretations proposed by archaeologists, to the point that some are even cited by archaeologists to support their findings. One reason for this is that no one has devised a framework for incorporating the full range of archaeological sites in Prussia that provide information on cult praxis; many syntheses are concerned with comparisons of funerary rites and often as expressions of ethnicity or social status rather than spirituality. The exception to this is deposits of horses in cemeteries which have also been interpreted in the context of religious practices. Beyond the cemetery, as Mirosław Hoffmann (1999, p. 4) notes, the physical evidence for Prussian religion is far more intangible; many sites identified as places of cult have poor chronological resolution – or none at all.

The Prussians have been a topic of research for scholars of the history of religion since the 1970s (Biezais, 1976; Suchocki, 1991, summarised in Kosman, 1976 and Bojtár, 1999), but fascination with their belief systems is evident from the end of the Middle Ages. The chroniclers of the Teutonic Order in the fourteenth century were rather scathing and dismissive of Prussian religious beliefs, although scholars have largely drawn on Peter of Dusburg's somewhat generalised descriptions (Bertuliet, 1924; Krollmann, 1927), as well as later church documentation and the work of the Dominican Simon Grunau (d. 1530) which was framed in a more enquiring intellectual climate, despite being widely dismissed as an unreliable document of pre-Christian Prussian practices (Okulicz-Kozaryn, 1983, p. 227). These sources do in fact contain valuable incidental information but, as the basis for coherent reconstructions of pre-Christian cosmology, they remain problematic. The first detailed conceptualisation of Prussian religion as a hierarchical polytheistic pantheon can be attributed to Grunau, where he defined the most important Prussian gods as Patulas, associated with the dead, Patrimpas, linked with fortune and Perkūnas, the god of rain and storms. The *Sudovian Book* (German *Sudauerbüchlein*), compiled by an anonymous author in the mid-sixteenth century, is seen as the most influential text for later reconstructions of the pantheon and, whilst this source is concerned with the beliefs of the Sudovians, there is a general consensus that all western Baltic groups shared a broadly comparable religious system. The close

association between religion and ethnic identity has been used to explain the ferocity and 'genocidal' character of the Prussian Crusade, as well as the nature of the conversion campaigns (Jouet, 1989, p. 61). However, not everyone has accepted the accuracy or honesty of the written sources, and some have contested that Prussian ethnicity even played a role in the crusading ideology of the Teutonic Order, dismissing interpretations of its military activities as ethnic cleansing (Urban, 2000). Recent scholarship has demonstrated how Christian commentators from Adam of Bremen through to Peter of Dusburg and Jan Długosz wrote with specific ideological agendas, actively engaged in stereotyping and relying on very limited sources of information. Their understanding of Prussian religion was to a greater extent organised around received knowledge of Classical Greek and Roman paganism; a staple of Christian clerical education in the medieval and early modern periods. Modern historians have, in turn, approached the data with their own hermeneutical perspectives.

One of the most detailed reconstructions of Prussian cosmology was done by the Lithuanian scholar Norbertas Vėlius, who adopted a structuralist perspective framing everything from mythology through to house structure – and even clothing – as a series of universal oppositions. He grouped and situated the Prussian belief system within the western block of his tripartite division of Baltic culture, characterised, in contrast to the other blocks, by the dominating pantheon of underworld gods (Vėlius, 1989, p. 58). He also saw the 'world tree' as a central element in Baltic cosmology, analogous with later documented Scandinavian mythology (*ibid.*, pp. 218–220). Robert Fischer (1970) and others after him (e.g. Jouet, 1989) went further by looking for common Indo-European elements in Baltic and Slavic groups, comparing pagan Scandinavian and Hindu gods alongside Baltic deities. From the earliest medieval commentaries through to the mid-twentieth century, Prussian religion had also been understood as diametrically opposed to Christianity. This view prevailed until the work of Stanisław Piekarczyk (1964) where the distinction was blurred with a consideration of syncretism. This notion of religious hybridity, however attractive it may seem within modern scholarship of conversion period studies, is in fact very difficult to identify archaeologically and will be explored more in chapter 6. Instead, it is possible to contribute to a more nuanced understanding of the temporal and spatial variability of cult practices amongst the Prussians through the study of landscape, particularly in association with place names and material culture.

One crucial flashpoint between archaeologists and some historians concerns the regional organisation of Prussian cult activity. Archaeologically there appears to be extensive local diversity, perhaps even specific to the family group, but several scholars have sought to validate a regionally significant cult site named Romow by Peter of Dusburg, who situated it in Nadruvia; it was subsequently named Romowe by Nicolaus of Jeroschin and Rickoyto-Rikoyoto by Simon Grunau (Bojtár, 1999, p. 320). Romow is described as an inter-tribal sacred site with a pagan 'pope', whose spiritual leadership was recognised in Prussia,

Livonia and Lithuania. The concept of a Prussian ‘Rome’ fired the imagination of nineteenth-century romantics and the volume of scholarship on this topic will not be revisited here, suffice to say that no pan-Baltic cult site has been recognised archaeologically (Vaitkevičius, 2009, p. 52); moreover such a site is unlikely to have played a role within the heterogeneous culture of early-medieval Prussia, in contrast with centralised Lithuania (Bojtár, 1999, p. 321). The development of the Grand Duchy of Lithuania can be linked to the institutionalisation and the centralisation of cult, reflected convincingly in the changing regional trends in horse sacrifice. The deposition of horses is discontinued in peripheral areas of Lithuania, only being maintained within the emerging centre of political power (Bertašius, 2006). Horse deposits are also largely absent from much of Prussia in the twelfth century, except in Sambia where they continue to be reported from cemeteries into the thirteenth century (see below). The relative absence of horse burials from southern Prussia may reflect the general lack of cemetery data, but there are also evidently differing ritual practices across the region.

The evidence for ritual specialists or priests in pre-Christian Prussia has been entirely based on written sources – such individuals have yet to be identified in cemeteries. Piotr Cywiński (2001) referred to a passage in the Treaty of Christburg (1249) to suggest Prussian religion was ‘shamanic’ in character, a term that has been applied to some pre-Christian North European societies in the first millennium. The treaty refers to *quasi gentilium sacerdotes*, interpreted here as burial specialists who dealt with the otherworld but were not actual priests; indeed the Teutonic Order was unable to identify them by the usual Latin terms for priest because they were fulfilling the role of what Cywiński has interpreted as shamans, with no familiar equivalent in contemporary Christian society. The document refers to these specialists shouting and mediating between the two worlds through visions (ibid., p. 88). Indeed some have suggested that priests were the most influential social class in Prussia (Vélius, 1989, p. 244), and that they may have had exclusive access to certain cult sites such as sacred groves (Kuczkowski, 2008, p. 102). They appear to have played an important role as funerary specialists, termed *Tulissones* (etymologically interpreters of signs) and *Ligaschones* (referring to disease and illness; healing specialists) (Cywiński, 2001, p. 91). In the absence of any indigenous written accounts and relying on echoes of earlier beliefs captured by later Christian commentators, it is virtually impossible to reconstruct the cosmological or theological complexities of pre-Christian Prussia. However, the fragmentary evidence does point to a set of practices (and perhaps then beliefs) with both shared and distinctive elements found across the eastern Baltic.

The archaeology of Prussian religion

Despite their limitations, the extant written sources consistently suggest that pre-Christian Prussian spirituality was closely linked to the natural environment.

This is supported by place name studies that enable the mapping of woods, hills, fields, rivers, lakes and marshes designated sacred on the basis of late medieval and early modern sources. The sacred landscape of pre-Christian Lithuania has been documented in this way (Vaitkevičius, 2004), but no such comprehensive survey has been conducted for Prussia. Whilst there is an interesting corpus of place names for Prussia, these were not recorded in any indigenous sources but rather by Slavic and German outsiders. In this respect they are problematic for reconstructing pre-Crusade sacred topography insofar as they reflect colonists' *perceptions* of the pagan landscape. This makes them an extremely interesting resource for understanding the experience of Christian colonists in Prussia, and perhaps in many cases they may correspond to earlier cult sites; a notion that invites verification through archaeological investigation. Numerous cult sites and monuments are referenced in the work of German archaeologists and historians in the early-twentieth century where attempts were made to link sacred place names with specific points in the landscape (see the *Zeitschrift für Altertumsgesellschaft Prussia* series), and some have been critically examined by Polish archaeologists and scholars in recent decades. However, scholarly interest in pre-Christian Prussian cult has until very recently been sporadic and limited (Hoffmann, 2000, p. 151). In many cases it has been difficult to verify the chronology or function of places or monuments with folkloric or toponymic associations with pre-Christian cult and the majority remain unknown archaeologically. Arguably the best studied cult sites in Prussia are cemeteries, although there is no representative sample of eleventh- to thirteenth-century sites from across the entire region enabling meaningful comparisons to be made. Given the contrasts and similarities that are evident on the basis of existing research, future studies of pre-Christian cult sites and the conversion period will shed new and important light on the diversity of Prussian tribal culture and social organisation (see also chapter 6). Current knowledge of Prussian religion can be sub-divided into landscapes, carved stones, cemeteries and the ritualistic treatment of horses but, as will become clear, this data is fragmented, unevenly represented and problematic to interpret.

Cultic landscapes

The earliest commentators on Baltic pagan beliefs refer to the veneration of trees (Mannhardt, 1936); Adam of Bremen states that Christians were denied access to sacred sites to avoid polluting (*pollui*) them; Pope Innocent III's Bull (October 5, 1199) referred to the fact that Prussians, Lithuanians and other Balts 'venerated ... deciduous trees'; Peter of Dusburg (*Chronicle*, III: 5) states that 'they had sacred woods (*sacrosanctas sylvas*), fields and waters where they did not dare to cut wood, till the land or catch fish'; whilst Jan Długosz wrote that forests were perceived as habitats for pagan gods. The rich corpus of later folklore associated specific species of trees and bushes with particular gods, such as the oak with Perkūnas; indeed the sacred status of species varied across the

eastern Baltic with sacred groves appearing as commonly documented landscape features. Animals living within these groves were assigned a special status; it was forbidden to break branches or cut trees and religious ceremonies held within these groves were inspired by conceptions concerning the gods and the dead (Vaitkevičius, 2009, p. 85). It is even possible that the veneration of sacred trees and groves may have resulted in the limited impact of Prussian settlements on the stretches of woodland in Prussia, rather than the inherent 'laziness' of Prussians perceived by chroniclers of the Teutonic Order. The reluctance of Prussians to grub up tree stumps, even if they interfered with ploughing, was also noted in the Order's sources (Okulicz-Kozaryn, 1983, p. 32) (see also chapter 7).

Prussian cult sites have been difficult to investigate archaeologically as they were represented by natural features such as hills, woods, rivers and lakes. Place names are suggestive and may record a later folk memory of earlier practices. The use of bodies of water for cultic activity, including the deposition of votive offerings, is well documented across the wetlands of pre-Christian northern Europe. In eastern Prussia every settlement had a lake or bog close by and there is some evidence for this practice, although it has not been as extensively studied as those in Denmark, Germany and Sweden. The sacred character of bodies of water in pagan Prussia was almost certainly absorbed into later Christian folklore, as documented in Lithuania, Latvia and Estonia. A number of sacred lakes are attested in Prussia; at Węgorzewo, Swentgriff in Sambia, Swyntheynen and Swintingen near Olsztyn; Peter of Dusburg wrote of sacred waters where no one dared to fish; there are also two Alka rivers in Sambia (Vaitkevičius, 2004, p. 90). The function of sacred hills is equally obscure. There is one example of an Alka hill (sacred hill) at Livenskoye in Sambia, whilst the stronghold constructed on a natural outcrop overlooking Lake Wojonowo in Galindia and named Święta Góra may have included both a cult site and elite residence, although this has yet to be verified archaeologically.

Medieval toponyms such as Heiligenwalde (rendered into Polish as Święty Gaj) in Pomesania and Sambia refer to sacred woods or groves (Hoffmann, 1999, p. 10). Although few sites with this place name are known from Prussia (two in Sambia and one in Pomesania; Hoffmann, 2000, p. 153), this does not preclude the existence of other sacred groves or woods. In some cases they are associated with a broader archaeological landscape which includes stone monuments and, as in the case of Święty Gaj in Sambian Caymen, a cemetery (*ibid.*, p. 152). Some natural cult sites were located near territorial borders and typically away from settlements; their role in organising the social landscape is hinted at in the documents of the Teutonic Order from the fourteenth century which record the presence of sacred groves in Sambia (Vēlius, 1996, p. 319), acting as visible boundaries between villages (Wenskus, 1968). This is reminiscent of the settlement pattern associated with the Sztum Forest on the western fringes of Pomesania, which may have functioned as a cult site for the nearby Prussian communities with no evidence to date for settlement within

its bounds. Here the woods appear to have functioned as a boundary between Prussian and Slavic settlements (see also chapter 3). In the south-eastern borderlands of Prussia and Masovia, it is difficult to untangle Baltic from Slavic traces of pre-Christian practices since they appear to have been very similar. In the Slavic Podlasie region numerous stones with hollows relating to the cult of Mary or the saints, as well as chapels located by springs, have been linked to the tradition of living or supernaturally charged water – a number are found in Białowieża Forest. The presence of large corridors of woodland in the region may have influenced the mental maps of the local community; some toponyms have been interpreted as reflecting the continuity in the memory of sacred sites, also expressed through hanging miniature chapels and crosses on pines and oaks and resulting in positive and negative symbolism being attached to specific trees and bushes (Wawrzeniuk, 2006). However, these are more readily associated with the Eastern Orthodox population and their translation to pre-Christian Slavic culture is debatable. Within Prussia, one of the most important trees species, which also features extensively in later folklore, is the lime (*Tilia*).

The goddess and the lime tree

The name of the goddess Kurko appears in its Latinised form *Curche* within the Treaty of Christburg in 1249, and the goddess seems to have been particularly popular in south-west Prussia. Women may have played an important role in this cult and the presence of small female figures holding drinking horns in sixth- and seventh-century Galindia and other parts of Prussia has been seen as evidence of the antiquity of Kurko (Białuński, 1993, pp. 5–7). Simon Grunau linked her devotion with food and drink in the form of offerings of rye, wheat, flour, milk and honey. In the landscape Kurko was associated with lime trees and groves where her cult sites were to be found in close proximity, as suggested by place names linked to the lime such as Lipowo, and to the goddess such as Kurkowo (1350) and Korkynne (1419), both in Galindia (*ibid.*, p. 5). This particular species was equally important in other parts of the eastern Baltic; in Samogitia and southern Livonia, lime trees were associated with the goddess Laima (Vaitkevičius, 2004, p. 20). The Teutonic Order re-dedicated Kurko's cult sites to their patron Mary. Święta Lipka near Kętrzyn (on the border between lesser and greater Barta) was already the focus for a Marian cult in the fifteenth century within the Krakotin Forest; the place name suggests a lime grove, although the site is more readily associated with Jesuit activity during the Counter Reformation (Białuński, 1993, p. 7). The name of the goddess was also preserved for a lake documented as Korken in 1339 and Kurken in 1365. Near the border with Barta, 2km to the north-west of the village of Wilimny, the island Kurka on Lake Mamry can be linked to surrounding woodland place names referring to lime. All of the place names of Kuruko are linked with natural features – water, woods and difficult terrain

– but in many of these places there are also names associated with the lime. Links between gods and the landscape could also be expressed through wild animals. Wilkopedzie (Suwałki) in north-east Poland is an outlying example of a cluster of sacred place names referring to the ‘wolf’s footprint’ in western Lithuania, and linked to the pagan state’s goddess Medeina-Žvėrūna, who could be visualised as a wolf (Vaitkevičius, 2004, p. 54). These two examples – the lime and the wolf – demonstrate the regional specificity of sacred topography and they will be more comprehensively understood through their relationship with other features in the landscape which can be connected to pre-crusade society. These include large carved stones that are found unevenly distributed in several regions of Prussia.

Carved stones

Carved stones have been found in archaeological contexts in eastern Prussia, particularly in Sambia and Nadruvia (Smirnova, 2001). They are usually recorded within stone pavements at strongholds or cemeteries and bear a range of markings: at the cemetery at Yrzekapninis (Klincovka 1), two worked stones – one carved with an even-armed cross – were uncovered at a site associated with cult activity until the end of the tenth century. Near the cemetery at Dubki, an area inside a stone enclosure interpreted as a cult site also dated to the tenth century included two boulders, one carved with a trident and the other with two trefoils or even-armed crosses. There is limited and often indirect evidence of the continued use of these symbols into the thirteenth century; a boulder with zigzag decoration was discovered near the hill-fort at Bociąg, occupied from the eighth to thirteenth century. A unique stone, pitted and marked with an impression of the fingers of a right hand, was recovered from a dwelling structure at Konikowo built around the turn of the eighth/ninth century, and interpreted as a votive construction offering (Engel, 2004). Large boulders, usually glacial erratics, bearing marks representing human feet, horseshoes and crosses have also been found in the eastern Podlasie region and parts of Lithuania. Similar examples can be found in Pomerania, where popular attributions of magical functions only appear in the early modern period. In the absence of archaeological contexts the chronology of these boulders and their function remains uncertain, although they may have served as boundary markers in some cases (Kuczkowski & Kajkowski, 2007/2008).

The most distinctive carved stones associated with pre-Christian Prussia are popularly known as *kamiene baby* (stone women) (Figure 2.9). At least 21 are documented and they are found in three regions: mostly in Pomesania-Sasna; six in Barta and Natangia; and also in Galindia (Hoffmann, 1999, p. 10). They take the form of large granite boulders with human forms carved into their surface in low relief, and are at the centre of the debate over whether the Prussians personified their deities as anthropomorphic idols. Several of these carved boulders are recognisably female and carry the same set of objects or



FIGURE 2.9 A stone '*baba*' now situated in the courtyard of the castle at Olsztyn (Allenstein)

symbols, most often a horn, whilst others are more convincingly representing male figures. Iconographic interpretations vary. Some scholars have drawn links with Scandinavian representations of 'valkyries' represented as horn-bearing women on a diverse range of Viking Age artefacts and monuments, others have suggested various folkloric identifications relating to a host of supernatural entities from gods to local spirits. The femininity of the sculptures has of course resulted in their identification as Prussian goddesses. They can only be dated stylistically and this has also been problematic; some have

argued for ninth- to tenth-century origins, whilst more recently those with depicted weapons and armour have been broadly dated from the eleventh to thirteenth century (Rybka, 2007). Excavations in 2007 directed by Mariusz Wyczółkowski at Poganowo (site 4) near Kętrzyn, discovered a carved stone identified as a *baba* and buried next to a ring ditch filled with stones in close association with animal bones, predominantly from horses (see below). The complex was dated to the tenth to eleventh century (Łapo, 2007, pp. 12–13; Wyczółkowski, 2009), however, the identification of the alleged *baba* and the function of the site remains controversial (Karczewski, pers. comm.). Even if the later stylistic dates are accurate for this group of carved stones, this does not mean that they remained important monuments into the thirteenth century and their role as functioning monuments within the Teutonic Order's state has been largely dismissed (Białuński, 2007).

Dating aside, the function of these carved stones is equally problematic to interpret. The use of idols is certainly attested in neighbouring Slavic regions during the pre-Christian period (Ślupecki, 1994), whilst a large number of carved stone figures are known in the steppe regions of eastern Europe and central Asia (Hoffmann, 1999, p. 10). In Prussia, the majority of low-relief carved stones have been displaced from their original location thereby depriving archaeologists of their earlier context. One of the stones popularly named *Bluźniercy*, which stands today outside the archaeological museum in Gdańsk, was originally situated on a mound named *Krolicza Góra* up to the late-nineteenth century. This was donated to the museum by the owner of *Mózgowo* woods in 1889, at the same time as a number of similar figures found their way to the museum. The two stone *baby* at *Bartoszyce* were relocated several times around the town in the eighteenth and nineteenth centuries and their position only became fixed at the start of the twentieth century. Sometimes these stones were re-used as boundary markers. For example, the carved granite boulder known locally as *Gnuśna Dziewczyna* at *Elanowce* in *Natangia*, near two Prussian cemeteries, had been moved to mark the boundaries of *Hussehn*, *Wackern* and *Rossitten* (ibid., p. 8). The presence of these sculptures in close proximity to Prussian settlements, often near cemeteries, has of course encouraged their association with pre-Christian cult activity. In *Pomerania*, a carved stone *baba* was situated on top of a *Kurgan* burial in *Glisna*, prompting interpretations of an association with the cult of the dead (ibid., p. 11). In *Poganowo*, the identification of the buried stone with the group of standing sculptures remains controversial but, for some scholars, this represents the first clear link between the *baby* and Prussian cult practices, here involving the ritual killing and consumption of horses. These associations were not preserved in later folklore which is dominated by recurring themes such as women cursed and transformed by their mothers for their misdemeanours or, as in the case of the *baba* at *Olsztyń* (Figure 2.9), a petrified Prussian prince. It is of course inappropriate to project these comparatively recent sources back into the pre-Christian period.

The last group of stones associated with pre-Christian cult are the so-called 'offering stones', which have been identified at 15 Prussian sites to date. They consist of large, flat boulders which vary in size up to over 4m, surrounded by smaller stones as in the case of Awajki in Pomesania, where the site was dated to the tenth to eleventh century from an inscribed Scandinavian sword found under the largest stone. At Kraußen in Sambia, the remains of an intense burned layer were found on the western side of the slab; charred material and ceramic fragments were also found around and under the stone at Sambian Dubrowka, and burning took place around the stone at Kretowinach in Pogesania (*ibid.*, pp. 4–5). Such examples and the popularity of the cremation rite suggest the role of fire in Prussian cult was clearly extremely important. In some cases these stones have been situated within a broader cultural landscape; near the 'Devil's Stone' in Grundfeld are archaeological features suggesting the existence of a central place of settlement for the Natangian tribe (*ibid.*, p. 8; see also above). In southern Sambia, the cultural landscape around the stronghold and settlement of Tuwangste (which became Königsberg (Kaliningrad); see also chapter 3) included eight satellite strongholds, three settlements, four cemeteries and two cult sites (Kulakov, 1999, Figure 1). The cult site at Poganowo is associated with a large hillfort, two smaller strongholds and several open settlements (Wyczółkowski, 2009). Furthering our understanding of Prussian sacred topography will depend on this level of macro-regional survey, integrating the evidence for monuments and sacred natural places with settlements, strongholds and cemeteries.

Cemeteries and the cult of the dead

The dead played a vital role in pre-Christian Prussian culture. Much of our knowledge concerning Prussian material culture derives from cemetery excavations, however, these are unevenly represented between northern and southern tribal territories; there is a general lack of early-medieval burial grounds in Galindia, Sasna, Warmia and Barta in comparison to the relative abundance in Sambia and Natangia (Nowakiewicz, 2006, p. 169), perhaps a reflection of the relative settlement density of these regions, but also reflecting a cultural shift that resulted in the abandonment of earlier cemetery sites. The presence of distinct Baltic groups in the region of North Poland at the end of the fifth century is linked to the appearance of cemeteries in the Elbląg region with human cremation burials, sometimes packed in urns, and furnished horse inhumations (Stasielowicz, 2004). These represent the most important source of jewellery and ornamentation, but regional variation in the burial rites has also been used to identify specific sub-groups, tribes or archaeological 'cultures'. The cemetery at Oberhof (Aukštėmėiai, Klaipėda region) excavated in the last decades of the nineteenth century was in use from the third to twelfth century AD, and provided the initial basis for the chronological phasing of East Prussia (Reich, 2007). Between the fifth and seventh centuries AD, the western Balts practised

inhumation and mound burial (referred to as kurgan or Polish *kurhan*), and four distinct Prussian groups have been identified. 'Flat' cemeteries are associated with the Sambian and Elbląg group, as well as the southernmost Olsztyn group corresponding to the tribal territory of the Galindians. A third group referred to as Suwalska corresponding to the Sudovian tribe is associated with a preference for mound burial cemeteries, which also characterise central Lithuania. A fourth group associated with the Scalovians is represented by predominantly flat burial grounds and a couple of mound cemeteries south of the Nemunas (Długokęcki, 2009a, pp. 28–29, map 1). There is no evidence for cemeteries in Prussia from the eighth century with the exception of the Elbląg upland and Sambia (Wróblewski, 2006, p. 227).

Here the predominant burial rite was cremation. At Cerkiewnik (Olsztyn County) at the Prussian cremation cemetery from the mid-eleventh century the remains of a funeral pyre measuring $3.7 \times 1.7\text{m}$ were discovered, consisting of a thick layer of burnt sand, charcoal, bones from various domestic animals (including most probably a horse) and an elderly human, as well as remains of ceramic vessels, an iron knife, a bronze pendant and an iron fishing hook (Ziemlińska-Odoj, 1992). Fire seems to have been particularly important in Prussian culture. Not only were the Prussian dead burned and various fire ceremonies enacted at these sites but captives would be ritually sacrificed on pyres. Peter of Dusburg (*Chronicle*, III: 5) describes how an eternal flame was maintained by a certain priest considered (most likely incorrectly) a regional high priest. So strong was the requirement to cremate the dead that Prussian armies would collect their fallen warriors with their weapons from battlefields for this purpose, as noted in the *Livonian Rhymed Chronicle* (verse 3756; Okulicz-Kozaryn, 1983, p. 223). However, there are also examples of sites where both cremation and inhumation was practised, e.g. Bludau (site 2) (Kostrovo), whilst the inhumation of horses is also extensively recorded here and then further north and east in Lithuania and Latvia (Wróblewski, 2006, p. 227).

Cemeteries were not simply sites for burial rites, but appear to have had a suite of structures associated with other types of activity. Wooden pole frames and constructions, revealed as posthole sequences during excavations, form an important element of North Sambian sites from the third to thirteenth century; the latest to be abandoned by the crusading period was at Klintsovka (site 3). They are situated in or associated with cemeteries and include pavements, stone, pits and hearths within their bounds. Whilst it is possible the posts were carved with anthropomorphic decoration in the manner of idols, none have survived (Smirnova, 2006). The surrounding landscape context of cemeteries is not often considered, especially where archaeological investigations are rescue excavations. In Samogitia and Lithuania, the practice of cremation in specific groves is documented (Vaitkevičius, 2004, p. 56), and the relationship between sacred woods and cemeteries has already been hinted at as part of a wider sacred landscape. In order to investigate this relationship further, it would be useful to situate known Prussian cemeteries within their immediate surroundings through

palaeoenvironmental studies aimed at environmental reconstruction. It is also possible that many later southern Prussian cemeteries have not been located because they lie in wooded areas which are difficult to study archaeologically.

Cemeteries were not the only focus for the cult of the dead. In Galindia in the tenth and eleventh centuries, a type of funerary rite referred to as 'Black Forest (Czarny Las) burials' is named after the Galindian stronghold at Szeszno-Czarny Las mentioned above; these burials were situated under the floor of a designated 'mortuary room' within dwellings (Wróblewski, 2000). The rites at Czarny Las also involved animals (Sabaciński, 2002) and fragments of human skulls which, when combined with similar examples from six other sites, can be interpreted within the broader context of a Prussian 'head cult', although it is impossible to say whether these derived from normal cremations, social deviants or war trophies (Sabaciński, 2005). The relationship between settlements and the dead had been expressed differently in Sudovia, where it has been argued that the cult of the dead was focused on manifestations of a house, such as long halls and kurgans, concealing burnt and selected remains of individuals (Wawrzeniuk, 2006). The importance of ancestors, especially tribal leaders in Prussian religion, was documented in post-medieval sources (Vēlius, 1989, p. 57), but clearly there is regional variation in how the dead were treated alongside their role in local cult activity. The ritual killing and deposition of horses appears, on the face of it, to be a feature that characterises Prussian and eastern Baltic pre-Christian society but, on closer examination, this is an equally fragmented and unevenly represented tradition.

The sacrifice of horses and humans

In the later literature, particular animals are associated with specific Prussian deities. For example, chickens were linked to the goddess Kurko and it may be that such animals were sacrificed to her (Białuński, 1993, p. 6). Archaeologically, the most significant animal that recurs as a ritual deposit is the horse, both within and beyond the cemetery. However, burial grounds represent the most important sites where animals and people were ritually killed. These practices are mentioned several times in fourteenth- and fifteenth-century written sources which associated specific tribes with particular rites; for example, Peter of Dusburg linked the burning of live horses with the Natangians whilst Jan Długosz describing the Sudovians referred to the sacrifice of a male goat or bull, something also noted in the *Sudovian Book*. Human sacrifice, documented occasionally in fourteenth-century Lithuania, is mentioned in relation to Prussia in a number of papal bulls, such as one Honorius III issued in 1199 which refers to the immolation of prisoners, whilst a papal bull of Gregory IX describes how girls dressed in fresh flowers and wreaths were burned alive by the Prussians as offerings to evil spirits (Okulicz-Kozaryn, 1983, p. 237). Peter of Dusburg describes how in 1261 the Natangians dedicated a captive from Magdeburg to their god, and burned him alive mounted on his horse

(*Chronicle*, III: 91; Wyszomirski & Wenta, 2004, p. 102). In 1320, the captured Voigt of Sambia and, in 1380, the commander of Memel (Klaipėda) both suffered the same fate in Lithuania. Nicholas of Jeroschin notes how if a nobleman died, his wife, arms, horse, cattle, hunting birds, clothes and other possessions were burned with him on a pyre, believing that all would be resurrected in the afterlife. Another documented belief concerned the souls of the dead reincarnated as animals and plants, perhaps what Innocent III was referring to when he mentioned the Prussians greet their gods in the form of wild animals (Okulicz-Kozaryn, 1983, pp. 231–232). These written sources are often presented, as they are above, as an amorphous catalogue of Prussian beliefs. What is intriguing is that broad similarities in beliefs in an afterlife are documented across the eastern Baltic (Gimbutas, 1963, pp. 187–188). However, what is also evident from these sources, and more so from the archaeological evidence, is that there was a range of different rites which included Prussian men and women, foreign captives, animals and particularly horses. The latter played diverse roles in ceremonies enacted at burial grounds and other cult sites. Their specific treatment differed between the early and later phases of horse burials.

The ritualistic killing and deposition of horses is evident from the first century AD in Masuria and from the second century AD in Sambia (Zinoviev, 2009; Karczewski, 2011, pp. 161–191), and is adopted more or less simultaneously across the eastern Baltic in Lithuania and Latvia (but not, interestingly, Estonia) (Jaskanis, 1966) (Figure 2.10). Perhaps the best documented example of the diversity of horse deposits comes from the fifth/sixth- to eighth-century cemetery in Nowinka near Tolkmicko, north-east of Elbląg. Three sets of rites were practised involving horses: they were burned on a pyre together with the dead (although it is impossible to know whether the horses were alive or slaughtered before being placed on the pyre), or their remains were put into a separate pit next to the human grave, or a living horse, presumably drugged or exhausted, was made to enter into a very narrow and deep pit. The burned remains of the dead were put in the cinerary urn and placed on the animal's back. Grave goods were added and then the pit was filled up with earth (Okulicz-Kozaryn, 1983, p. 33). Horses in Nowinka and in other cemeteries in the Elbląg area were also buried alive in less practical ways; excavators have observed how the limbs of their skeletons were bent, how their fore-legs lay stretched forward and how their heads were unusually twisted, suggesting many had struggled in the graves (Kontny *et al.*, 2009). Cases where their legs had been flexed and the animals were lying on their side may represent the effects of restraint (Stasielowicz, 2004, p. 43). Horses were not always deposited with people as proxy grave goods, but also buried separately. This is evident from the Roman-period cemetery of Paprotki Kolonia in Masuria, where the placement of potentially live horses in pits within the cemetery was accompanied by rituals involving the use of plants, fire and pouring charcoal (Karczewska *et al.*, 2009).

An altogether different rite has been termed *Aschenplätze* and is represented by collective graves consisting of associated human cremations, artefacts that



FIGURE 2.10 Twelfth-century horse burials from the North Sambian cemetery of Kholmy (Mülsen), Kaliningrad Oblast (R. Shiroukhov and A. Zinoviev)

were added to the pyre later as they showed no signs of incineration and burials of complete horses. They are broadly dated to the tenth/eleventh to thirteenth century and are interpreted as the burials of warriors, as associated artefacts include swords, battle axes, spearheads, spurs, horse bridles and various elements of horse harness, as well as penannular brooches, belt sets, bronze bowls and ceramic vessels. At Statzen/Stacze the spearheads were found buried vertically in the ground, perhaps as a way of marking the burials (Wróblewski, 2006, p. 229). In the cemetery at Aleika (site 3) in North Sambia, 34 burials dating to the eleventh and twelfth centuries consisted of an upper level that had been exposed to fire and included a range of artefacts; wheel-thrown ceramics, iron spears, javelins, knives, spurs, weights for scales, buckles, plates, fibulae, finger-rings and bone combs. The lower level contained horses and various pieces of equestrian equipment including stirrups, ring bits, cheek-pieces, buckles and bridle pendants. These lower levels had been covered over with clay, which also preserved wooden vessels, wooden tools and fragments of leather belts, as well as wooden saddles in the case of three horse burials; one was covered with leather and two had been painted yellow, red, brown and black on the arch of the frame (Khokhlov & Skvortsov, 2009). Within some Sambian cemeteries, there appears to be a relationship between horse deposits and areas where cremated warriors were buried. The Prussian cemetery at Zophen (Suvorovo) was

excavated in 1928 with the material worked on by Herbert Heym but never published. He dated the latest phase of the cemetery to the twelfth and thirteenth centuries, and noted that the largest concentration of horse graves was placed in the area of the so-called *Aschenplätze* (Wróblewski, 2006, p. 229).

The variety of sacrificial rites across Prussia remains to be studied comprehensively and situated within the broader context of the eastern Baltic. In Lithuania, horses began to be buried in cemetery clusters of their own with examples of living burial rites, best documented at the large cemetery at Marvelė (Bertašius, 2012). The majority of horse burials have been uncovered in north-east Prussia, particularly in Sambia (for a description of the variety of horse burial rites across the peninsula see Kulakov, 1990). Further west and in neighbouring Pomerania, horse burials from the Early Medieval Period are virtually unknown. The regional differences could reflect the varying importance of equestrian culture, and the burial of riding equipment such as spurs, bits and harness fittings in Prussian graves may also reference horse burial by proxy, as has been suggested for early Anglo-Saxon England (Fern, 2007). Differences have also been regularly linked to variation in social structure across the region (Bliujienė & Butkus, 2009). In Sambia for example (although also in parts of neighbouring Natangia), the burial of riders with horses begins in the mid-second century AD but remains limited until the fifth century when the number dramatically increases and, by the end of the Migration Period, this is a regularly practised ritual until the crusading period. This trend has been linked to social changes associated with the beginning of the amber trade and the rise of a 'clan' system (Skvortsov, 2009). The motivation behind the specific burial or burning of live animals (and people) is of course impossible to reconstruct. What is evident is that the burial of living horses is present in the Prussian region from at least the fifth century AD and persists for eight centuries. Horse sacrifice continues to be documented in Lithuania throughout the crusading period, whilst in Prussian tribal lands archaeologically attested horse depositions from the post-Crusade period have yet to be reported. The specifics of horse sacrifice were certainly known to the Teutonic Order, enabling Peter of Dusburg to provide a detailed account relating to specific tribal areas.

Horses were not only deposited in cemeteries but appear to have, at times, been the focus of ritual activity at other specially designated sites. Ongoing excavations at Poganowo, already referred to above, have uncovered the first cult site in Prussia which is not associated with a cemetery. Here, horse bones representing 90 per cent of an assemblage of over 4,000 fragments had been scattered across the central part of a demarcated area, consisting of at least 60 male and female animals of various ages. The remains of three posts nearby may have been places where the animals were tethered before being slaughtered (Wyczółkowski, 2009). Overall, this assemblage is likely to represent the waste from ritual feasting. The site was occupied for two centuries, but was abandoned before the Crusades. Adam of Bremen had written in the 1070s that the Prussians ate the meat of horses and drank their blood and milk, but

zooarchaeological evidence for Prussian horse consumption has been otherwise limited.

The examples presented above have included comparisons between Prussia and other pagan societies in the eastern Baltic. It is also important to consider how centuries of contact with neighbouring Christian regions, not to mention targeted Christian missionary activity, may have gradually influenced certain aspects of Prussian cult practice. But when reviewing the archaeological evidence it can be suggested that the twelfth and early-thirteenth century, in contrast to the Migration Period and Viking Age, was a time of relatively rigid boundaries between Prussians and neighbouring Christian Slavs.

The Christian borderlands of Prussia

Archaeologists have long been concerned with the ethnic diversity of the regions bordering Prussia in the south, i.e. the Kulmerland (Ślaski, 1969, p. 216), Dobrin Land and Masovia (Chudziak, 2002, p. 137) and in the west, Pomerania (i.e. eastern Pomerania) bordering with Pomesania, before the onset of the crusades. Before the Second World War, these regions were perceived as either Prussian or Slavic. The character of this settlement and its relationship with the Prussian tribes represents a fundamental background to the crusading period and yet, given the resources allocated to investigating the origins of the Polish state, these borderlands are arguably far better known than the Prussian interior. Over 1,500 early-medieval sites have been identified in the Kulmerland and Dobrin Land alone, mostly by the AZP (see also chapter 1) (Chudziak, 1996, p. 13), whilst excavations have focused primarily on strongholds and, to a lesser extent, settlements and cemeteries, and with over 100 radiocarbon dates this region has arguably the best chronological resolution in Poland (Chudziak, 2002, p. 139). All of these borderlands saw the establishment of frontiers between Slavic and Prussian settlements clusters by the tenth century, and Prussian raids probably attest to the dating of the final phases of several strongholds along the western and southern borderlands to the twelfth or thirteenth century. The presence of Prussian groups in these borderlands was almost certainly temporary, as there is no archaeological evidence for the permanent replacement of Slavic settlement with Prussian villages or strongholds. Written sources on the other hand suggest that the Kulmerland had been temporarily occupied in the early-thirteenth century.

Kałdus and the Kulmerland

In the south-western corner of Prussian territory lay the Kulmerland, a region which was colonised by Slavic groups from the eighth century. The western Slavic (Łużycka culture) settlement of Kałdus (*In Culimne*), which the most recent excavations dating to the mid-seventh century, came under Polish dominion in the second half of the tenth century. The wealth of finds, revealing significant

international contacts with Rus' lands, Scandinavia and central Europe, indicates this was the most important early-medieval centre in the southern Polish-Prussian borderlands. It contained the only stone church known beyond the central part of the early-medieval Polish Kingdom dating to the first half of the eleventh century. The presence of a fortified stronghold and the church reflects political aspirations and most likely the creation of a base for missionary activity (see below); part of the church foundation overlay a stone construction interpreted as a pre-Christian altar (Chudziak, 2000). In the twelfth century, the settlement was the centre for the regional Polish castellan (Buko, 2005, pp. 283–284), and the intensity of occupation is reflected in part by the provisioning of significant quantities of livestock, particularly cattle and pigs (Makowiecki, 2007). The Kulmerland experienced increasing colonisation and by the thirteenth century there were Masovian knights and peasants present (Biskup, 2002a, p. 132). The network of strongholds that was developed during this time formed a ring around the region, leaving the central part unprotected. This has been interpreted as reflecting the threat from neighbouring groups, especially Prussians (Poliński, 2003, p. 130). Indeed, Prussian raids began to put pressure on Slavic settlement in the region, although Kaldus itself appears to have been occupied until the arrival of the Teutonic Order (see also chapter 3).

Galindia and Masovia

The presence of increasingly powerful Slavic groups on the southern fringes of Galindia coincides with the appearance of hill forts, new burial rites and Slavic pottery within this tribal territory (Nowakiewicz, 2006, p. 169). Slavic influence continued to be felt into the eleventh century, as suggested by a limestone casting mould from Barczewko used for making crescent-shaped pendants. This was a period of flourishing metalwork in Galindia, as suggested by hoards of silver objects made locally (Antoniewicz, 1955). Such initial contacts appear to have been peaceful – at least enough to stimulate this significant exchange of commodities and ideas, but the Galindians were undergoing difficulties and economic decline in the latter centuries of the first millennium, exacerbated by subsequent wars with Poland (Białuński, 1999, p. 59). The growth of the Polish state in the mid-tenth century extended to the region of Masovia. Before their official incorporation into the renewed Polish state in the mid-eleventh century following the invasion of Casimir the Restorer, Masovians had been pagans, and it is even possible that proximity to the southern Prussian tribes prompted the persistence of cremation burial rites into the mid-twelfth century, as in the region of the upper Orzyc which was settled by Masovian Slavs (Powierski, 2001, p. 192). Indeed, after the Masovian cemetery in Tańsk-Przedbory ceased to be used, two cremation graves dating to the twelfth or first half of the thirteenth century have been interpreted as Prussian incomers, although the Masovian cemetery at Stare Łączyno continued in use into the mid-thirteenth century (Okulicz & Okulicz, 1963). In the basins of

the Rivers Liwiec, Bug and Koruna, the cremation rite appears with the first Slavic settlers from the second half of the sixth century and was practised until the end of the thirteenth century; in the central part of the Bug basin, cremation and inhumation occurred together. The introduction of Christianity did not significantly change local burial traditions and the frontier location of the region, distant from episcopal administration, almost certainly accounts for the persistence of pre-Christian practices (Kalaga, 2006).

Nonetheless, the political authority of the Piast dynasty was clearly expressed in the construction of strongholds and impressive linear earthwork defences on a massive scale, following the incorporation of Masovia into the Polish state. At this point the borderland was recognised as a volatile frontier. Masovian frontier settlements in the ninth century had reached Grzebsk, Działdowo and Orzyc; from the ninth to thirteenth century the extent of Slavic colonisation stretched beyond Goniądz. The nearest Galindian settlements were located around Pasy and Szczytno some 40km away and separated by a belt of woodland (Białuński, 1999, p. 8). This included Lubavia, neighbouring with the Kulmerland and Prussian Sasna, which saw Masovian colonisation from the early-eleventh century secured with strongholds. These were abandoned or destroyed by the early-thirteenth century (Poliński, 2003, p. 133). Prussian raids are known from the written record and became serious enough to prompt an organisational response from the Masovian dukes – the development of castellanies where individual officials based in strongholds were responsible for protecting their assigned territories. However, there is also evidence for the abandonment and contraction of settlement in North Masovia at this time. At Grudusk, a stronghold belonged to the Cistercian abbey at Mogiła, the presence of the church suggesting the continuation of some form of settlement after the stronghold was abandoned or destroyed by Prussian incursions; the stronghold at Serock was burned three times and rebuilt twice between the ninth and thirteenth centuries (Powierski, 2001, p. 171–172). The stronghold at Ciechanów, originally constructed in the seventh century, was reoccupied from the ninth to twelfth century, then destroyed – presumably by Prussians – and reoccupied in the fourteenth and fifteenth centuries (Górska, 1976, pp. 31–34). The stronghold at Stary Łączyn was occupied into the mid-thirteenth century by which time the majority of archaeologically identified settlements around the River Wkra had also been abandoned (Powierski, 2001, p. 192). These sites represent the intensification of military activity across the Prussian border in the pre-crusading era and form an important background to the actions of the Dukes of Masovia.

The Vistula and Elbląg fenlands

By the end of the tenth century, Polish dominion had extended down the lower Vistula and across Pomerania. This expansion was also secured with a series of strongholds, and trade prospered along a network of proto-urban

emporia. Truso would come to be replaced by Gdańsk but, as in Masovia, traces of pre-Christian culture lingered in Pomerania into the twelfth century, even prompting a pagan uprising within Gdańsk itself that was crushed by the military forces of the Polish king. In both the Kulmerland and Pomerania, the expansion of the Polish state was contested in the tenth and eleventh centuries, as suggested by widespread evidence for strongholds destroyed by fire. Whether this was the result of Prussian tribal incursions is difficult to verify, but when combined with the intensity of settlement activity demarcating a territorial border, it is clear that Slavic colonisation east of the lower Vistula was precarious. The fenlands between the Rivers Elbląg and Nogat can be considered something of a multi-cultural frontier before the creation of the Order's state, exemplified by the presence of Truso. The region corresponding to Prussian Pomesania and more broadly the Vistula fens had been referred to as *Pacifica Terra* – the land of peace (Rynkiewicz-Domino, 2004), a term that acknowledges the role of trade between Prussians and Pomeranians.

The border between Pomerania and Pomesania was not represented by the River Nogat, but rather by the belts of woodland to the east. Archaeological evidence for settlement intensified from the eighth to thirteenth century, and typical Slavic stronghold and associated settlement sites are prevalent between the two tributaries of the Vistula: the Nogat and Pasłęk. The first strongholds functioning as border forts appear in this frontier region between the eighth/ninth century and the start of the tenth (Jagodziński, 2004b). In the borderlands of Slavic Pomerania and Prussian Pomesania traces of a stronghold were discovered at Węgry, indicating a period of occupation from c.1025 to 1170/1180. The site, within the political sphere of the Duchy of Pomerania, was situated in a perfect position to control river traffic coming down the eastern branch of the lower Vistula. It has been interpreted as the Slavic settlement of Bronki (the later name is first recorded in 1530), fulfilling key administrative and economic functions, and its abandonment has been linked to Prussian westward expansion in the direction of the Vistula from the late-twelfth century (Haftka, 1987). This does not appear to have resulted in any permanent settlement. Prussian ceramics have been found during excavations in the outer bailey of Malbork castle, datable from the ninth to thirteenth century, but with the absence of an associated cultural layer they suggest temporary, seasonal occupation (Dąbrowska, 2007, p. 305).

Prussian artefacts found in neighbouring regions may have been acquired through either trading or military incursions. They include eastern Baltic annular brooches from the start of the twelfth century, a thirteenth-century penannular brooch and horse harness pendants found in Gdańsk from the mid-twelfth to late-thirteenth century (Paner, 1999, p. 393). It is difficult to untangle raiding from trading and it is evident that both activities defined the pre-crusading period in Prussia. In the easternmost part of Prussia, the Sudovians were engaged in warfare with the Rus' princes from the 960s (Białuński, 1999, p. 23). The archaeological evidence for this and the

depopulation of Sudovia in the thirteenth century is discussed in the following chapter. Aside from colonisation and military activity, what characterises the Prussian–Slavic borderlands is missionary activity which has been regularly linked by historians with the political aspirations of the Polish kings.

Missionary activity in Prussia before the Crusades

Adalbert and Bruno

Christianity had been adopted in the heartland of the Polish Piast state, but its introduction into Masovia was slow and protracted, particularly in the east of the region where a diverse range of barrow burials suggests the persistence of pre-Christian rites. The Christianisation of Pomerania was equally protracted; the burial tradition aligned with Christian eschatology becomes gradually standardised during the eleventh century leading to the eventual abandonment of traditional grave goods (Kuczkowski and Kajkowski, 2012, p. 35). Nonetheless, the process of colonisation was accompanied by the expansion of Christian infrastructure and by missionary activity. King Bolesław ‘the Brave’ (d. 1025) who had established an independent metropolitan see at his political centre Gniezno sent Bishop Adalbert and his Benedictine companions to Christianise the Prussians. Adalbert’s martyrdom and rapid canonisation created a mythology associated with missionary activity in Prussia. The site of Adalbert’s martyrdom remains disputed, although Ślupecki (2007) has suggested the unfinished church uncovered by excavations at Kałdus was the location of both Adalbert’s martyrdom and the focus of his earliest relic cult. The role of Kałdus as a missionary centre is entirely plausible. The church itself appears to have been built directly over a pre-Christian cult site – interpreted as a place of sacrifice – and the building was subsequently destroyed during a resurgence of paganism amongst the local Slavs, rather than Prussians. Although the centre would return under Polish control, the church was never rebuilt and the complex was finally abandoned in the early-thirteenth century, shortly before the arrival of the Teutonic Order in the Kulmerland.

Indeed, the loss of such a crucial centre for the Masovian dukes forms an important element of the background to the crusades. Kałdus represents the most important religious centre in the Polish–Prussian borderlands. Other churches may have existed in the region, but remain unknown archaeologically (Mroczko, 1974, p. 284). The abbey at Mogilno, operating from the second half of the eleventh century, was maintaining a church at Słońcy on the route running down the Vistula linking the Pomeranian strongholds with Gdańsk and the Baltic coast (Powierski, 2001, p. 161). To the north, in Curonia, the first Catholic church may have been built as early as 1069 on the coast at Palanga, although there is no evidence for the proliferation of Christianity before the crusading period (Žulkus, 2002a, p. 202). As a result, Kałdus has had every historical figure from Prussia attached to it, including the second-most

important saint associated with early missionary activity: Łbik (1999) tried to link the church discovered at Kaldus with the mission of Bruno of Querfurt. The historiography associated with Bruno and his martyrdom in Prussia in 1009 has been discussed in detail by Białunski (1999, pp. 120–135), who suggests the area north of Merkinė in Sudovia (modern southern Lithuania) as a more likely site of his martyrdom than somewhere in Masuria. Although there is no archaeological evidence for this mission, the popularisation of Lake Niegocin as the site of Bruno's martyrdom from the early-twentieth century resulted in the creation of a heritage landscape that remains contested today (see also chapter 8). St Adalbert's mission has been traditionally regarded as extremely important not only for the history of Christianity in the Baltic but also for the development of the Polish state. Whilst the lack of its impact in Prussia is reflected by the general absence of places associated with the saint in this region (including Gdańsk) during the Middle Ages (Śliwiński, 2004, p. 47), he was adopted as the patron saint of the Sambian diocese where, ironically, the missionary process continued to be least effective.

Cistercian missions

Missionary activity into Prussia was not sustained due to the rejection of Polish rule in Pomerania and a period of reversion to paganism in the eleventh century, which resulted in the focus of attention in the late-eleventh and early-twelfth century on the re-conquest of Pomerania. This was finally completed in 1123 and was followed by missionary attempts that succeeded with Otto of Banberg and resulted in the establishment of Pomeranian bishoprics. Only after this system had stabilised in 1141 would missionary activity once again target Prussia only to be superseded by holy war (Śliwiński, 2004, p. 50). The main instigator of missionary activity at the start of the thirteenth century was the Cistercian abbey in Łekno (the oldest in Poland, established c.1153). In 1204, several monks travelled to eastern Pomezania to visit the site of St Adalbert's martyrdom. They were subsequently taken prisoner. The abbot visited to secure their release and judged that the people were ready to accept Christianity and some form of political union with Poland (Zielińska-Melkowska, 2000, p. 209). In this context he received papal sanction in 1206 to evangelise the Prussians. The mission of 1207 targeted the local prince and the elite of Pomesania (Zielińska-Melkowska, 2000, p. 212). The abbot died shortly after in unknown circumstances, and the mission was taken over from 1209 by Christian and Philip who obtained papal dispensation to engage in missionary activity, bringing the territory under the protection of the archbishopric of Gniezno. Philip was killed by Prussians in 1213, after which Christian took over missionary activity. His Cistercian Brothers picked up the local Prussian dialect and they focused their evangelising efforts in Lubavia and the vicinity of Elbląg, apparently with some success. There was a political dimension to this process; part of Lubavia with its central stronghold at Lubawa had already come under the

political control of the Masovians. Christian then established his bishopric at his primary outpost – Sanctir or Zantir (see also chapter 3) – which had been granted to him by the Pomeranian duke. In 1222, Konrad of Masovia provided Christian with the status of castellan in the Kulmerland, with associated strongholds and settlements (*ibid.*, p. 220). Christian's organisation of missionary activities across the western and southern borderlands is certainly impressive but was frustrated by increasingly aggressive Prussian incursions, particularly into the Kulmerland. The activities of the Cistercians may even have penetrated as far as Sambia, but there is no archaeological evidence for the adoption of Christianity in the Prussian interior before the crusading period.

Russian missions

There is no physical evidence of Rus' missions into Prussia, although pectoral crosses dating to the mid-thirteenth to fourteenth century have been found in Sporwiny (near Bartoszyce). These could have been as a result of contact between the Bartians and Rus' via the Sudovians, or they may have been brought by Lithuanians in the late-thirteenth or fourteenth century, when the Rus' settlement at Grodno came under the control of the grand dukes (Antoniewicz, 1955, pp. 262–267). Of course, it is impossible to link these sporadic finds with Eastern Orthodox missionary activity rather than simply reflecting long-distance trade (Hoffmann, 2004, p. 71).

Conclusion: characterising Prussian culture before the Crusades

Despite over a century of research by German and Polish archaeologists, not to mention historians, our understanding of pre-Crusade Prussia remains very much a 'work in progress' (Nowakiewicz, 2006, p. 168). Nonetheless, it is possible to characterise key elements of this culture before its transformation in the thirteenth century. Prussia in the first centuries of the second millennium was a mosaic of small territories composed of larger family groupings sharing a militaristic culture led by an elite equestrian class. The Prussian economy was probably supported by slavery, although there is no direct archaeological evidence for this and, in contrast to Lithuania, cult activity was organised at a local level. The diversity of religious practices and the varying intensity in settlement, trade and political organisation all point to a heterogeneous Prussian society. The most successful approach to understanding the changes that transformed this society from the Migration Period to the thirteenth century has been to investigate entire macro-landscapes, with the aim of establishing a relative chronology for every monument and archaeological site. However, it is clear that some groups prospered economically through participation in international trade, notably the Sambians, whilst others, such as the Galindians, were reduced to pockets of small-scale settlement by the onset of the Crusades.

The borderlands of Pomerania–Pomesania and Masovia–Lubavia–Sasna as well as the Kulmerland were characterised by early Slavic colonisation which was subsequently undermined by Prussian military incursions. In the east, the political organisation of Sudovia was overwhelmed by Rus' invasions and the process of depopulating the 'Great Wilderness' may have begun before the crusades.

Notes

- 1 For the sake of clarity, consistency and synchronicity with the English literature the name Sudovian (Sudovia) is used in this book to refer to what is termed the Yotvingian/Jatvingian culture in Polish literature.

3

THE RAVAGES OF HOLY WAR

Crusade and colonisation in the thirteenth century

Brother Ulrich was brave in mind and body ... in a battle with the Sudovians he received five wounds in the manner of the cross, as he had always wanted, and he died of them.

(Nicolaus of Jeroschin, *The Chronicle of Prussia*, III: 204–206; Fischer, 2010, p. 197)

Crusading ideology in the Baltic

The military orders were an established model for crusading in Christian European society by the mid-twelfth century, and local varieties would be successfully used as the tools of rulers. The idea of founding religious orders of knighthood would eventually pave the way for secular knightly orders (Boulton, 2000, pp. 16–22). But in the thirteenth-century Baltic world, holy warriors were increasingly needed for the growing number of crusades against indigenous pagan societies. Only a few hundred kilometres from Prussia, Bishop Albert had used the model of the military orders to found the Sword Brothers, who would play a fundamental role in the conquest of Livonia before being incorporated into the Teutonic Order after a disastrous defeat in 1236 at Saule in Samogitia. Polish attempts to conquer areas of Prussia had been ongoing since the mid-twelfth century, but these sporadic invasions did not become ‘crusades’ until the early 1200s. Bishop Christian, inspired by his contemporary in Livonia, encouraged the foundation of a military order to defend the borderlands of Prussia: the Knights of Christ (Starnawska, 2001, pp. 420–421). Konrad, Duke of Masovia, provided the Knights with territory in the Dobrin Land (who then adopted the name Order of Dobrin), but other military orders were also being encouraged by Polish and Pomeranian magnates to invest in the south-eastern Baltic, including the Templars and even the Spanish Knights of Calatrava (*ibid.*, p. 422). Ducal control over the military orders ultimately failed after the Teutonic Order was invited to participate in reclaiming the borderlands from pagan Prussians in 1225. With papal endorsement, Imperial and Polish support and enthusiastic responses to the calls for crusade, the Order

soon took complete control of what became a systematic conquest of Prussian tribal territories.

The Prussian Crusade was technically a series of crusades sustained over five decades. The mid-point of these crusades was the Treaty of Christburg in 1249, which consolidated the Order's hold over Pomesania and Warmia. Conflict with western Natangia lasted until 1253 and the following year Barta and Galindia had been officially included within the conquered territories. In 1255, Sambia was initially occupied with the aid of Ottokar II of Bohemia, although it was not pacified until nearly a decade later, whilst eastern Natangia was overwhelmed by the Order's armies in 1256. The crusaders then turned their attention to Samogitia, but their catastrophic defeat at Durbe prompted the Great Prussian Uprising which would endure until 1274, followed by a short-lived rebellion two years later. At this point Nadruvia and Scalovia were occupied and the Order's armies pushed further east again. Sudovia was gradually occupied by 1283, when Peter of Dusburg notes the end of the wars with the Prussians, whilst conflicts with Lithuania on the north-east Prussian frontier would continue into the 1290s (Dygo, 2008a; Urban, 2000). The Teutonic Order came to represent the crusading ideal in the Baltic region, although it was joined by many secular contingents of crusaders who came to Prussia and Lithuania in order to participate, for a period of 40 days, in a holy war where their sins would be absolved (see also chapter 1). Recruitment into the Order dramatically increased, with over 60 per cent of the membership in Prussia during the thirteenth century coming from central-eastern Germany and eastern Saxony, with smaller numbers from Franconia, Swabia and Hesse, as well as from the Rhineland, Westphalia, the Netherlands and Austria (Dorna, 2004).

A defining feature of the Prussian Crusade was a deliberate, sustained process of colonisation and the gradual development of an administrative structure to manage the conquered territories. Colonisation was integral to the activities of the military orders in all the frontiers of Christendom (Boas, 2006). The Order of Dobrin had been actively involved in settling the land granted to them by Duke Konrad; the Teutonic Order had likewise encouraged colonists to develop their holdings in Galilee and Transylvania, and they had been offered the Kulmerland in exchange for securing the Masovian borderland. Successful management of these territories required flourishing, well-connected settlements; not only did they provide a pool of skilled labour essential for constructing and maintaining fortifications, but they generated wealth for the Order and provided military and logistical support. Our understanding of the relationship between the Teutonic Order's early fortifications and settlements – of this first wave of colonisation – remains sketchy, and will require more detailed chronological reconstruction of individual sites through archaeological investigation. In some cases, the Order set up its bases in or near existing settlements (e.g. Königsberg), in other instances it took advantage of earlier, abandoned infrastructure such as strongholds (e.g. Graudenz (Grudziądz)), as

well as encouraging the foundation of settlements in places with no evidence for previous occupation (e.g. Elbing). With the consolidation of the Order's territorial gains came increased control over these settlements and many were subsequently reorganised or relocated with official town privileges. But these town communities quickly developed their own complexity and identity, becoming increasingly independent from their founders. The extent to which these centres were controlled by the Order remains debatable (Chęć, 2007; see also chapter 5).

Archaeological evidence for the crusading period indicates a schism in early-medieval culture. The majority of indigenous strongholds and settlements cease to be occupied and castles, towns and churches are built by the incomers. In this respect the impact of the Prussian Crusade is very different to the Norman Conquest of England. Whilst some sites have actual destruction horizons, there are very few traces of the conflicts documented by Peter of Dusburg. Battlefield assemblages are difficult to locate, the Prussians are known to have cremated their dead and fallen crusaders would have been recovered for burial in consecrated ground. The forests of north-east Poland and the Kaliningrad Oblast are littered with mass graves from the two World Wars, but these conflicts and the loss of human life were on an incomparable scale. In this respect, the archaeology of the Prussian Crusade is predominantly the archaeology of colonisation. Traditionally this episode, a defining moment in the historical development of European society, has been seen as part of *Ostsiedlung* – the eastwards expansion of German settlement. Avoiding engagement with nationalist sentiment (see also chapter 8), it is instructive to briefly consider the archaeology of medieval colonisation of lands west of Prussia, specifically Pomerania, as this resonates with trends in the south-eastern Baltic: processes involving military conquest, religious conversion and urbanisation, loosely framed by the ideology of holy war.

The archaeology of *Ostsiedlung*: holy war and colonisation

Polish archaeologists and historians have emphasised the Slavic origin of trading centres on the southern Baltic coast that prompted the development of towns such as Kołobrzeg (Kolberg), Szczecin (Stettin) and Lübeck, supported by extensive economic hinterlands. However, most early-medieval Pomeranian settlements have material culture suggesting the hybridisation of Slavic and Scandinavian cultures; indeed, Scandinavians appear to have played important social roles as far south as Kałdus and Poznań within the early Polish state. From the ninth century the eastward movement of Christian, German-speaking communities into regions occupied by pagan Slavs is a well-documented process, intensifying in the eleventh century, and the development of the eastern duchies of the Holy Roman Empire – Pomerania, Brandenburg and Lusatia – is well known (Meyer, 1996; Higounet, 1986; Bartlett, 1994). By the mid-twelfth century, the land between the Elbe and the Oder would be colonised, secured politically and militarily through the construction of castles and framed

within the context of Christianisation, which included the declaration of a crusade against the pagan Wends (see also chapter 1). The process was driven by elite groups such as the archbishops of Magdeburg and powerful magnates such as Henry the Lion, Duke of Saxony, who founded the Marquisate (German *Mark*) of Brandenburg in the mid-twelfth century.

Archaeology has an important role to play in documenting and understanding medieval colonisation, as more traditional sources of historical evidence cannot stand alone (Wünsch, 2008, p. 10). The events of the twelfth-century *Ostsiedlung* are paralleled by the construction of strongholds and churches, as well as the reorganisation of towns that established a template for planning subsequent colonising settlements (Brather, 2005). Whilst the abundance of archaeological data on the development of Lübeck contrasts with the limited knowledge of colonising elite sites in Brandenburg, archaeological investigations in the post-war period have significantly contributed to our understanding of the restructuring of Pomeranian settlements, particularly Szczecin and Kolobrzeg, but also Wolin, Cammin and Stargard (Leciejewicz, 1995). There is an evident distinction between late Slavic (*spätslawischer*) and early German (*frühdeutscher*) material cultures by the mid-twelfth century, reflecting a gradual Germanisation of the Polabian Slavs following their incorporation into the political, religious and economic structures of the Holy Roman Empire (Kempke, 1995). The process of cultural transformation is protracted and takes several centuries. For example, in mid-eleventh century Slavic Lübeck (Alt Lübeck), the presence of stave buildings points to neighbouring German and Danish influences (Fehring, 1990, p. 253). Slavic Lübeck is documented as being destroyed in 1138 and the German town founded in the same location five years later, however, excavations revealed that some parts of the settlement were uninterrupted with direct continuity between the two phases, such as the use of late Slavic buildings into the early German period. When the new city was founded in 1159 following its documented destruction by fire, the archaeological evidence indicates this was in fact only an extension of the existing settlement, much of which survived intact. A further wave of colonisation from the 1180s had a more noticeable impact on the internal development of the town. Lübeck, like many German planned towns, represented an expansion and reworking of late Slavic settlements in this region (Fehring, 1990), with evidence for continuity in the use of roads and fortifications at some of these sites (Hill, 1995). The western Slavic aristocracy as well as the Cistercians and Premonstratensian monastic orders played an important role in organising and encouraging Christian German settlers, although the number of migrants was relatively small (Wünsch, 2008, p. 25).

A parallel situation occurred in neighbouring Pomerania from 1119–1121, where the Polish King Bolesław III (the Wrymouthed) was reinforcing military conquest with Christianisation, and politically this region would largely remain a semi-independent vassal of Poland until 1309. The presence of German groups in towns such as Gdańsk is known from the written sources

and from trends that have been identified archaeologically, such as the appearance of German culinary culture represented by the introduction of carp and herring (Makowiecki, 2001), whilst locally produced material culture retained its Slavic character (see also chapter 5). Efforts to consolidate the religious conversion of Pomerania saw the establishment of the Cistercian abbey of Oliwa near Gdańsk in 1186, subservient to the Polish Diocese of Kuyavia. In the early-thirteenth century, the Dominican monastery in the town would be founded from Cracow, aimed at reinforcing the evangelising process (see also chapter 6). The military orders also became involved in this process; in 1198 the Hospitallers were granted the stronghold at Starogard Gdański and maintained a presence there until 1370, although they did not participate in crusades against the Prussians (Starnawska, 2001, p. 420). Christianisation was clearly a defining element of the cultural changes that shaped early-medieval Brandenburg and Pomerania (Rębkowski, 2007). The physical infrastructure of the Catholic Church in these regions was only more widely established following military conquest and colonisation, reflected in the proliferation of churches and monasteries. However, shifts in burial rites from cremation to inhumation, as well as the abandonment of animal deposits in cemeteries (Kuczkowski & Kajkowski, 2012), was a regionally variable process reflecting the staggered stages of religious conversion which continued into the thirteenth century (Pollex, 2004).

Aside from the community of German merchants residing in Novgorod, the furthest extent of *Ostsiedlung* in the mid-twelfth century was the German (so-called 'Saxon') settlement of southern Transylvania, organised by the Hungarian crown in the region of the *Terra Bursa* or *Burzenland*. Archaeologically, the clearest evidence of this colonisation is derived from seven cemetery sites which can be dated to the mid-twelfth century by their specific burial rites (the so-called anthropomorphic graves), as well as the first phases of some associated churches (Ioniță, 2005). This region was a permeable frontier between Christian Hungary and the region occupied by nomadic, pagan Cumans. The threat of Cuman raids prompted the Hungarian King Andrew II to invite the Teutonic Order in 1217 to create a stable borderland, to be echoed by Duke Konrad's invitation several years later. Written sources credit the Order with the construction of five castles within a decade of arriving, although only the identification of one or two of these as surviving monuments are widely accepted by archaeologists (Laszlovszky & Soós, 2001). Virtually all agree on the location of Marienburg castle next to the village of Feldioara, 15km north of Braşov and the Carpathian Mountains (Ioniță *et al.*, 2004) (Figure 3.1). Excavations of the village cemetery revealed burial rites indicative of the presence of German colonists and datable by associated coins to the mid-twelfth century, suggesting that when the Teutonic Knights came here they made use of the existing infrastructure already established by familiar German-speaking communities. The form of the castle at Feldioara is tailored to its topographic setting, but it is not reminiscent of the Order's castles in the Holy Land. The



(a)



(b)

FIGURE 3.1 The castle at Fieldioara, Transylvania, identified as the site of the Teutonic Order's castle of Marienburg (a). Excavations from 1990–1995 and in 2007 revealed substantial foundations of a wall probably dating to the thirteenth century (b). The wall was demolished during the rebuilding of the castle in the fourteenth century and the outer wall was moved away from the edge of the mound; both walls of the north-facing part of the castle are visible in (b)

earliest phase of this elongated structure consists of a stone wall surviving only as foundations, encircling an irregular courtyard and punctuated with two towers, elements of which may date to the thirteenth century. Unfortunately, subsequent demolition and restoration of the castle wall has truncated and mixed its archaeological strata, including significantly earlier La Tène and Neolithic material, although the robust foundation wall of the early castle survived more or less intact below ground (Pluskowski *et al.*, 2010a). The speed and efficiency of the Teutonic Order's building programme is attested by this structure. Fourteen years after their arrival the Order was expelled and its castles were seized by the Hungarian crown. At this point the Teutonic Knights relocated to south-western Prussia. This 'Transylvanian experiment' (Urban, 2003, p. 31) provides the first archaeological example of the Teutonic Order functioning outside the context of the Holy Land, where the construction of castles may be linked to the process of colonisation. Our understanding of the nuances of German colonisation in Transylvania will invariably develop with further excavation and specialist (e.g. palaeoenvironmental, isotopic) research. However, this group is well documented historically and preserved not only their distinctive identity within the greater Hungarian kingdom, but also maintained contacts with core German regions (Keene, 2009, p. 10).

The archaeology of *Ostsiedlung* is above all concerned with colonisation and the development of medieval German culture, commonly referred to by modern scholars as *Kulturnation*. Although there was no unified German identity with a sense of collective destiny comparable to later nationalism, regions within the Holy Roman Empire shared related dialects, social customs and a distinct political community (Scales, 2005; Schmieder, 2009). But even if regional linguistic complexity did not promote a sense of 'Germanness', it did contribute to developing the infrastructure of international trade and transport in the Baltic, and this is perhaps why merchants and crusaders were able to work together so closely beyond the Empire. In contrast, the inability of priests to communicate the message of Christianity effectively to their Prussian congregations represented a significant obstacle to the process of religious conversion. In the southern Baltic, the process of colonisation was preceded by military conquests, political reorganisation and a process of Christianisation. It was also paralleled by the actions of Slavic groups, especially the Polish kings and the Dukes of Gdańsk. During this process associations between warfare and religion framed in the ideology of holy war were reinforced by the political and religious reorganisation of Christianised society. In Transylvania, colonisation also saw the consolidation of Christian territory at the frontier with pagan societies. The presence of the Teutonic Order expressed, implicitly at least, the crusading ideology of safeguarding Christendom. The Hungarian King Andrew II was himself an important figure in the eastern European crusading movement (Laszlovszky & Soós, 2001, p. 321). In Prussia, the transition from pre-Christian to Christian culture is evident in the archaeological record, with both similarities and differences in how this process occurred compared to other colonised regions.

The final phase of Prussian strongholds

Peter of Dusburg's account spanning events over 50 years is littered with destroyed and hastily rebuilt fortifications. Peter presents this holy war as a sustained 'total war', describing numerous episodes of destruction, mass-slaughter and torture on both sides (Trupinda, 1999, p. 122). Archaeologically, a cultural transformation is evident, but at a relatively low resolution. Excavations across northern Poland and the Kaliningrad Oblast have identified a number of strongholds with multiple phases of occupation spanning several centuries (see also chapter 2). Their identity as Slavic or Prussian is one which is not always easy to ascertain, especially in frontier regions, but this is usually suggested by location, associated place names and material culture (Długokęcki, 2009a). The impact of the crusades can be linked with a chronological hiatus representing the final occupation phases of many Prussian strongholds. This latest phase of Prussian settlement is often derived from the dating of strongholds because these are the best archaeologically known early-medieval sites, and also represent the centres of political organisation. Hence, settlements attached to Jeziorko have been dated to the thirteenth century, as well as at Rogale and in Pańska Wola (Ostrów) (Białuński, 1996, p. 21). Unfortunately, this level of chronological resolution is relatively poor and sites are assumed to have been abandoned as a result of the crusades if they lack late-medieval material culture. Other types of settlement are poorly known and their occupation phases are often constructed on the basis of broad ceramic typologies, sometimes only from sporadic finds recovered during field walking.

As shown in chapter 2, several excavated strongholds have indicated earlier abandonment, prior to the crusades, and perhaps as the result of Polish or Rus' military activity. The limited human activity in parts of Galindia after the eleventh century, resulting from some internal demographic or economic crisis, has been connected with Polish and later Danish incursions (Wróblewski *et al.*, 2003, p. 168; see also chapter 2), although some areas continued to be occupied. Settlement around Rydzewo and Wierciejki survived into the crusading period and out of those sites yielding early-medieval ceramics, only Grzegorz, Skomack Wielki and the stronghold at Święta Góra/Staświny have yielded late-medieval material suggesting some form of continued occupation into the period of colonisation (Białuński, 1996, p. 20). To the south-east, the abandonment or destruction of Slavic strongholds on the border between Poland and Belarus can be linked to the territorial ambitions of Rus' princes in the early decades of the eleventh century. However, the resolution of the last phase of occupation of these strongholds remains relatively unclear, and the relative chronology assembled from the fragmentary datable evidence makes associations between strongholds and nearby settlement areas difficult to ascertain. For example, at Zajączki in Podlasie, a fortified site encircled by a stone-lined earthen embankment crowned with a timber wall dates to the end of the tenth/start of eleventh century AD. Nearby is a settlement with occupation

phases from the Neolithic to the Early Medieval Period. The stronghold was burned and abandoned in the eleventh century, but there are clear signs of reoccupation from the end of the twelfth/beginning of the thirteenth century. The destruction of the stronghold at Krasna Wieś (Boćki district) in the early-thirteenth century has been linked to the invasion of Rus' princes or the Tartar invasions in 1240–1252. The Sudovian stronghold complex at Jegliniec abandoned in the thirteenth century may have suffered a similar fate (see also chapter 2) and, by the end of the crusading era, the Order's territory – on parchment – stretched to Sudovia. This region became a largely depopulated frontier, part of the 'Great Wilderness'.

In summary, there is very little evidence for the continued occupation of Prussian stronghold sites into the fourteenth century. The Teutonic Order secured its conquered territories with fortifications. Based on Peter of Dusburg's account, it is widely believed that many of these were constructed directly on top of destroyed Prussian strongholds. If this assumption is justified, it would add another layer of sites to the final phase of thirteenth-century Prussian culture. However, verifying the re-use of earlier structures by the Teutonic Order – both in Prussia and Livonia – remains one of the most tantalising archaeological problems in the eastern Baltic.

The earliest strongholds and castles built by the Teutonic Order in Prussia

Archaeology has contributed significantly to our understanding of where and how fortified structures were built in Prussia during and after the crusades.¹ The Teutonic Order sponsored the construction of earthen-timber fortifications with embankments but, until its entry into Prussia, its members did not have much experience of the indigenous tradition of building embankment-based fortifications (Arszyński, 2000). In the Holy Land, masons employed by the Order developed existing castles already constructed out of locally quarried stone, in a very different environmental context to the one encountered in Prussia, where clay and timber were far more readily available. There is no evidence of this in Transylvania, where the Order was initially allowed to build timber fortifications (*castra lignea*), but had them constructed from stone (Laszlovszky & Soós, 2001, p. 323). Excavations at the castle in Feldioara did not identify any earlier timber phase, but uncovered a substantial stone foundation that has been linked with the Order's brief presence at the site in the early-thirteenth century (Pluskowski *et al.*, 2010a).

As a result, there must have been a rapid assimilation of Prussian, Slavic and Germanic fort-building techniques in the early stages of castle building by the Order in Prussia. Indeed, Peter of Dusburg had described all fortified structures whether constructed by the Teutonic Order, Pomeranians, Masovians or Prussians as *castra* (s. *castrum*), with associated settlements referred to as *suburbium* and *preurbium* (Kowalczyk-Heyman, 2006b), and Polish, Prussian

and the Teutonic Order's timber and earth fortifications are referred to as *grody* (German *Burgwall*) in the archaeological literature, distinguished from the later brick *zamki* or castles (Poliński, 2007b, p. 241; see also chapter 4). Archaeologically, it is possible to distinguish the use of earlier structures, the introduction of transitional fortifications combining the elements of early-medieval strongholds with those of later castles (such as residential towers) and the conventual castle built from more durable materials (Poliński, 2005).

One of the most enduring archaeological questions associated with castle building by the Order in Prussia in both the thirteenth and fourteenth centuries has been the re-use of existing structures (Kochański, 2001, p. 468). This practice is described in Peter's account for a number of the Order's *castra* (Poliński, 2007c, p. 42, note 2), and archaeologically has been attested at a number of sites. The Kulmerland had only recently seen Prussian occupation, and here the Order established its bases on the sites of former Slavic strongholds. This was repeated further down the eastern side of the Vistula valley which had seen extensive Slavic colonisation in previous centuries (see also chapter 2). Excavations at the Order's castles in Toruń (Thorn), Pokrzywno (Engelsburg) and Rogóźno (Rogasen) also revealed earlier, Slavic timber-earth structures dating to the late-twelfth/early-thirteenth century (*ibid.*, p. 45; see also below). At the stronghold of Zamkowa Góra in Stary Dzierzgoń (Old Christburg), recent excavations led by Daniel Gazda uncovered both Prussian and Teutonic Order material culture (Gazda, 2011), and German archaeologists working at the site in the 1930s had speculated it was re-fortified in 1230 in response to the threat from the crusading host, but the Order successfully attacked and occupied the stronghold (Szczepański, 2008; see also below). Preliminary field investigations at Rejsyty, a stronghold near Elbląg (Elbing), revealed fragments of medieval greyware and a paved surface suggesting the Teutonic Order may have utilised this earthwork but, without further excavation, it has not been possible to sequence the occupation phases (Jaszczyński, pers. comm.).

In the case of Malbork (Marienburg) castle, fragments of Prussian and Pomeranian ceramic have been recovered from the outer bailey, but without any evidence of a cultural layer denoting sustained occupation. Coring and geophysical survey in the high castle courtyard, the earliest phase of the complex, revealed deep stratigraphy with cultural layers evident at a depth of 3–4m (Figure 3.2). The identity of these has yet to be confirmed with excavation (see also chapter 4). At Königsberg, the Order's castle is assumed to have been constructed on the site of the stronghold of Tuwangste, and this has been partially verified archaeologically by excavations in Kaliningrad (Kulakov, 1999; see also below), whilst other Sambian strongholds have yielded both Prussian and Teutonic Order material (Wendt, 2011). The re-use of early-medieval earthworks was not only confined to the Order's early fortifications, but can also be seen in subsequent centuries. The procurator's residence at Pień constructed in the early-fifteenth century was built directly on top of a mound that



FIGURE 3.2 Schematic representation of the stratigraphy in the courtyard of the high castle of Malbork, based on a 3m core taken in 2010. A second core was taken in 2011 confirming occupation sequences in the courtyard down to a depth of at least 4m. The layers of sand are most likely associated with multiple phases of levelling

may have been occupied into the thirteenth century (see below and chapter 8). Whilst there are certainly instances of re-used sites, there are also examples of newly constructed buildings on fresh, unoccupied sites. Moreover, not every former, strategically located stronghold was utilised as in the case of Baldram, 3km north of Marienwerder (Kwidzyn) and abandoned before the Crusade.

In general, the origins of the majority of thirteenth-century fortifications remain poorly understood. However, what is clear from detailed regional studies (e.g. Poliński's on the Kulmerland; 2003) is that the construction of fortifications in the thirteenth century was tailored to the specific needs of the Order's garrisons and associated settlements. This accounts for the variety of forms, some of which included adaptations of earlier structures and a number of which were not remodelled as conventual castles (Poliński, 2007c, p. 56). These included relatively simple, moat and embankment ring-works enclosing a courtyard with a timber-framed building constructed on stone foundations. Some had fortified outer baileys; others contained mottes of various sizes. Occasionally gate house or perimeter towers were located at the edge of embankments (Kowalczyk-Heyman, 2006b, p. 224). From

the onset, these comparatively simple structures functioned as key centres of administration, managing the Order's newly acquired rural estates and also serving as hunting lodges (Kochański, 2001). Once some political and economic stability had been established in Prussia, castles began to be built and rebuilt from more durable materials, although even before 1280 there is evidence of stone being combined with brick (*ibid.*, p. 469), whilst timber and earth structures continued to be built by the Order into the fifteenth century (Poliński, 2007a, p. 241). Unfortunately, virtually nothing is known about the organisation of space in these early castles from the fragmentary archaeological record. It is reasonable to speculate the internal organisation of these sites would have been tailored to the specific needs of the garrisons. Peter of Dusburg's descriptions of the Order's thirteenth-century fortifications suggests the brothers did practise a communal lifestyle but, until the development of the conventual castle, it is difficult to describe them as fortified monasteries.

Only once these conventual castles begin to be constructed as a standardised template is it possible to associate them with a corporate institution, in Prussia, modelling itself on a monastic community and promoting the ideology of holy war. Written sources indicate this lifestyle already characterised the Teutonic Order before the onset of the Prussian Crusade; however, it is interesting to consider whether the consolidation of conquered tribal lands, the growth of the Order's resident membership and the development of sustained crusading against Lithuania prompted the creation of a particular identity for the Order reflected in the design of its buildings. Indeed, it would be instructive to compare the *idea* of politics run by the military orders with the physical expression of their identity and political authority in other regions.

The Teutonic Order's castles in Prussia were different to those in the Holy Land and Transylvania. The Order's first rural headquarters at Castellum Regis was held by various secular owners until it was acquired by the Knights in 1220. It consisted of a relatively small enclosure castle with four projecting corner towers and inner vaulted ranges (Boas, 2006, pp. 234–235). The larger castle at Montfort (Starkenberga) was situated on a steep mountain spur although not in a particularly strategic location. It had been sold to the Teutonic Order in 1227/1228 who rebuilt it as a large spur castle from large, well-cut, marginally dressed limestone ashlar. The structure was given concentric defences, two moats and, by 1244, was functioning as the Order's administrative headquarters, residence of the Grand Master and treasury (*ibid.*, pp. 6, 127–129) (Figure 3.3). The castle was lost in 1271 and reduced to a complete ruin, and so connections between its internal structure and the development of Prussian Marienburg in the first half of the fourteenth century are improbable. Whilst the Order's Baltic houses may seem reminiscent of Castellum Regis and several overlap chronologically with Montfort, the Prussian conventual castle that would come to typify the Order's brick buildings in the fourteenth century had its own specific prototypes in the Kulmerland (see also chapter 4).



FIGURE 3.3 The Teutonic Order's castle at Montfort (Starkenberg), north Israel (R. Khamissy and A. Boas)

What does link the early castles of the Teutonic Order in Prussia with those in the Holy Land and Transylvania is the practical adaptation to local conditions, combining existing traditions of building with available raw materials and the requirements of the resident community. An acute awareness of the broader landscape is also evident in the strategic location of castles: overlooking rivers, close to or on major routes and making use of the natural topography in much the same way as early-medieval communities had done. Virtually every study of the Teutonic Order's castles and early-medieval strongholds in the southern Baltic draws attention to the topographic context of each site. There is even some evidence the Order utilised old trees as watch towers and fortified points (Poliński, 2007c, p. 43). As in the case of early-medieval Prussian sites, our understanding of the siting and role of both early and later castles will be significantly enhanced through more detailed macro-regional studies encompassing the full range of settlements and landscapes (see Poliński, 2003).

Colonising settlements in thirteenth-century Prussia

The gradual advance of the Teutonic Order through western Prussia and the construction of early castles were accompanied by a process of deliberate and systematic colonisation. The Order enlisted German and Polish peasants to construct settlements and develop their surrounding hinterlands, something that did not happen in Livonia, which only experienced a substantial

immigration of Swedish peasants in the north-west districts of Estonia in the thirteenth century (Blomkvist, 2005, p. 666). However, in Livonia, there is evidence that a cohesive identity *did* eventually begin to emerge amongst the range of German-speaking incomers in towns and castles, creating a distinction between the political elite and much of the indigenous population (*ibid.*, p. 668). Indeed, archaeologists in Latvia and Estonia consistently draw a distinction between the material culture of indigenous and incoming groups in the thirteenth century (Mugurēvičs, 1990; Valk, 2004). On the other hand, some historians, most notably Kaspars Kļaviņš (2006), have argued for the development of a more integrated, collaborative society that arose over the course of the Livonian Crusade. To what extent is this true in Prussia?

Compared to the fourteenth century, the number of colonists coming into Prussia during the period of active crusading was very small, and the majority established themselves within the protected confines of settlements and towns attached to the Teutonic Order's castles. Whilst the organisation of the thirteenth-century crusades in Prussia quickly became the responsibility of the Teutonic Order, these military expeditions were very much a joint effort. Crusading armies consisted of knights from the Empire and other regions of central Europe, including Poland. As a result, the acquisition of property and the foundation of towns in the early decades of the Crusade involved all key participants. For example, Polish princes and the Burgrave of Magdeburg, together with the Order, founded Thorn, Kulm (Chełmno) and Marienwerder (Dygo, 2008b, p. 75). The crusading contingent of Henry III, the Burgrave of Meissen, founded Elbing, whilst the Bohemian King Przemysl Ottokar II contributed to the foundation of Königsberg, although the majority of investment here would come from the Order (Czaja, 2009). Towns were established along regular grids (see also chapter 5) and Peter of Dusburg describes them as having defensive perimeters from their earliest foundation, using the term *menia* and *munitio*, which could refer to timber and earth embankments (Kowalczyk-Heyman, 2006b, p. 223). The relationship between the location of settlements and castles remains to be explored in more detail. Which came first? It has been argued, for example, that the ports that developed during the second half of the thirteenth century, such as Elbing, Balga (Veseloe) and Königsberg, were located on or near earlier trading hubs (Okulicz-Kozaryn, 1997, p. 291). Certainly the location of Königsberg did not offer any military advantages, whilst Balga was situated in an area of relatively dense Prussian settlement (Kulakov, 1999, pp. 162–163). Even where the Order constructed their castles in areas of existing settlement, these were eventually re-founded as planned towns with official rights.

From the onset of the Crusade, the Order encouraged individual knights to promote the process of colonisation in the Kulmerland and Pomesania following military conquest. In 1233, the Order built a watch tower 4km north of Marienwerder which three years later was given to the German Knight Dietrich of Tiefenau, along with 300 *Hufen* (one *Hufen* or hide is around 40 acres), a

sizeable amount of land for a colonising settlement. By the end of the decade this was augmented with additional territory between Marienwerder and Christburg (Dygo, 2008b, p. 77). Excavations at the settlement revealed that the main tower of Dietrich's stronghold, framed by posts with walls of tightly packed oak beams, appears to have combined the functions of a residence, defensive keep and observation post (Figure 3.4). The site only functioned up to the First Prussian Uprising (1242–1249) after which it was destroyed, although occupation may have continued for a few more decades (Hafka, 2007). Only a few nobles settled further north in the 1240s, mostly on estates of 40 *Hufen* as provided for in the Charter of Kulm, except for a few poor knights who were given only two to four *Hufen*. Of the hundred or so nobles who accepted fiefs in Prussia before 1280, many died without heirs or were killed in the fighting. After 1280, there was more need for taxes than military service, so few new estates were granted and larger holders were encouraged to break up their estates among their heirs or deed them to the Prussian Church (Urban, 2000, p. 356).

The next phase of colonisation within the territories of the Order, as well as the dioceses of Warmia and Pomesania, only began after the suppression of the Great Prussian Uprising. The first peasant settlements are documented from the 1280s, a process which intensified by the end of the thirteenth century. For example, between 1296 and 1308, 20 new settlements were established around the Elbląg upland, whilst Sieghard of Schwarzburg founded a dozen colonies around Saalfeld (Zalewa) in an area partly occupied by Prussian settlements (Długokęcki, 2009b, pp. 200–201). Few colonists took their own

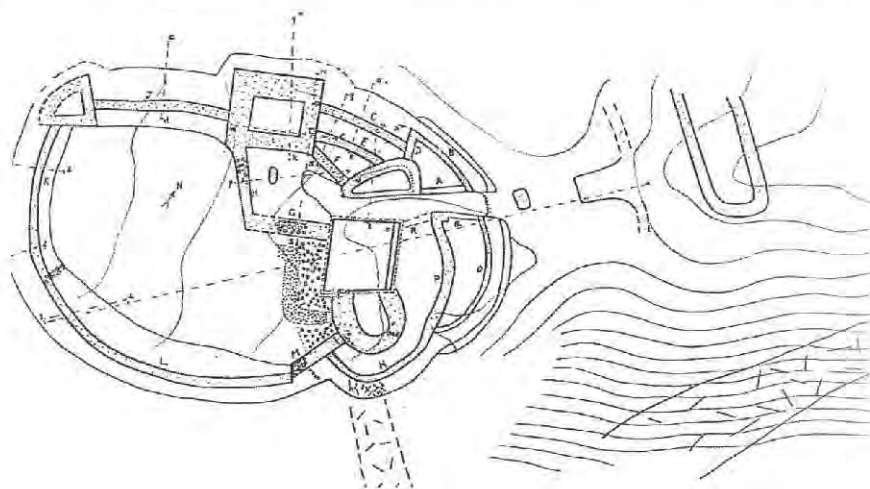


FIGURE 3.4 Plan of the excavated residence associated with Dietrich of Tiefenau at Podzamcze near Kwidzyn (Marienwerder) (aft. Heym's diagram of 1930 in Hafka, 2007)

initiative; all settlements were planned and financed by new landlords, whilst their appointed locators travelled to recruit settlers, and to ensure that key occupations were represented in each colony such as smiths, millers, bakers and priests. Incentives included a large farm free from taxes for several years followed by lower permanent taxes, as well as aid with constructing dwellings and tilling land. Taxes stipulated by the Kulm Law consisted of a tithe of a measure of wheat and rye, and an annual tax of one-half Mark per *Hufen*. The requirement to pay taxes in coin prompted colonists and native Prussians to produce a surplus for sale, in turn stimulating two-way local trade (Urban, 2000, p. 359).

Buschinger and Olivier (2007, p. 131) estimate that between 10,000 to 15,000 colonists came to the lands occupied by the Order and Prussian bishops at the turn of the fourteenth century, primarily focused on the Kulmerland, the lower Vistula and the coastal zone leading up to the Sambian Peninsula. They were largely Silesians and Germans from Brandenburg and Lübeck, with some individuals coming from Scandinavia and Holland. The southern regions were settled by many Poles, especially around Kulm (Urban, 2000, p. 353). In general, the colonists were directed to uncultivated land, mimicking trends in Silesia, Brandenburg, Mecklenburg and Pomerania. There is also documented evidence of resettlement. The Bartians were resettled in Pogesania at the end of the thirteenth century following an alliance with the Teutonic Order (*ibid.*, pp. 332–333). Individual settlements were organised (and reorganised) under a series of laws, two drawn from the Holy Roman Empire – the Madgeburg and Lübeck Laws – and two particular to Prussia – the Kulm Law and the Prussian Law (*Iura Prutenorum*). The latter governed settlements of indigenous Prussians, who were treated differently to incoming Christian colonists. There is in fact relatively little written data on the ethnic diversity within medieval Prussian settlements and disagreement between scholars on the levels of segregation. In the commandery of Balga and in Sambia it appears that Prussians also lived in settlements under the Kulm Law, and in the latter region they even functioned as colony locators (Długokęcki, 2009b, p. 205). This is perhaps one important area where future archaeological research has the potential to further our understanding of the impact of the Crusade on the indigenous population.

The archaeology of Prussian colonisation

The location of the colonies established during the course of the Prussian Crusade is well known from documentary sources. The majority of these associated with castles would later develop into towns and these are treated separately in chapter 5. Colonising or reorganised rural settlements in medieval Prussia, on the other hand, are virtually unknown archaeologically. An exceptional case is the site of Biała Góra, although no internal settlement plan has yet been identified. There are two problems associated with the material traces of the thirteenth-century phase of colonisation. First, many of the colonies have

remained relatively small villages and have not been subject to the same intensity of excavation as larger towns. Archaeologists have also not been particularly interested in excavating these villages from a research perspective, choosing to focus their attention on castles, churches and urban centres. In other instances, small rural holdings such as a *Vorwerk* may have been significantly modified by post-medieval development. Indeed, the majority of these rural colonies have no reported excavations and where there has been rescue archaeology it is usually unpublished or confined to the largely inaccessible body of regional grey literature (Sawicki, pers. comm.). Exceptions to this are an increasing tendency to put interim reports of even small archaeological projects online, and the planned publication of major rescue excavations associated with motorway construction, both in North Poland and the Kaliningrad Oblast. As a result, the next decade should see new archaeological data on settlement in medieval Prussia entering the public domain. The second problem concerns the difficulty of dating the transition from early- to late-medieval material culture at a high resolution. This has been attempted through the use of ceramics and coins, as well as building materials such as timber and brick. Radiocarbon dating is usually not precise enough to separate the middle decades of the thirteenth century from the earlier, final phase of Prussian occupation. The dating of Prussian sites remains an ongoing issue that will be gradually resolved with the development of new dating technologies, although the most precise and reliable dates have been provided by dendrochronology.

Ceramics

There is a disparity between the detailed written sources providing specific dates for various battles, insurrections, castle and town foundations and datable archaeological material recovered from the former territory of Prussia. As mentioned in chapter 2, the latest phase of Prussian ceramics has a very broad chronological range due to its conservative nature, i.e. from the eleventh (or earlier) through to the thirteenth century. In some parts of Prussia this type of ceramic may have continued to be produced into the late-medieval period, but this chronology would need to be refined with the additional dating techniques. In the borderlands of Prussia, including western Pomesania, Slavic ceramic forms are of course known but assigning an ethnicity to fragments is not always possible and they are simply referred to as 'traditional' with a date range of the eleventh to thirteenth century (Poliński, 1996; see also Wróblewski & Nowakiewicz, 2003). Masovian ceramics dated from the twelfth to mid-thirteenth century are represented by fully turned vessels with a strongly marked neck; in the southern Kulmerland they have a strongly marked belly and from the second half of the twelfth century to the start of the thirteenth they are typically thin-walled vessels. These have been regularly used to date strongholds in the Kulmerland, alongside an extensive programme of radiocarbon dates (Chudziak, 1994). The absence of typical Prussian ceramics

or their presence in very small quantities in what are otherwise defined as Slavic sites cannot definitively exclude the presence of a mixed Slavic–Prussian community as opposed to trade between the two groups. Linguistically, the two groups were separated, but there is evidence for interaction between Masovians, Pomeranians, Scandinavians, Germans and Prussians.

New types of ceramic form appear after the crusading period (Figure 3.5). The technology associated with their production was brought with colonists and can sometimes be sourced to their geographical origin, from Silesia through to the eastern regions of the Holy Roman Empire. These types of ‘greyware’ are all wheel-thrown, slender and variously decorated. They vary in colour depending on soil conditions from paler through to darker shades deriving from clay with a mixture of fine sand and medium-grained quartz. The colour itself and the contrast with Baltic ware can be related to a different technology, where vessels were fired in a reductive atmosphere. This technology does appear earlier on the fringes of Prussian lands, evident in the Kulmerland from the first half of the twelfth century. However, it is far more typical of the period of colonisation (Poliński, 1996). The largest and most studied assemblages of greyware from a single site have been recovered from excavations in Elbląg, where in late-thirteenth-century contexts their dating has been supported by dendrochronology (Marcinkowski, 2003b). Here, one of the earliest structures associated with ceramic production was a pottery kiln uncovered in the north-east part of the town near the defensive earthen embankment. Nearby were the remains of a timber house, which dated this complex to the turn of the 1280s until 1288, when it was destroyed by fire. A total of 82,451 ceramic fragments of wheel-thrown, mostly flat-bottomed ‘greyware’ were recovered from the site, including pots, jugs, bowls, plates, covers, lamps, spindle whorls and fishing net weights. They were made with slide-tape technology and fired at a temperature of 900°C (Nawrońska, 2006, p. 396). The general absence of spherical bottoms, a form associated with Westphalia and the Rhineland, suggests the potter came from Thuringia through Silesia or from Upper Saxony (*ibid.*, p. 400). In the Kulmerland, new ceramic forms appear in the 1230s and can be used to date the first phase of settlement until c.1343, with subsequent changes in pottery use coinciding with major political shifts (Poliński, 1996; 2003, p. 21). At a number of sites virtually complete vessels have been recovered indicating a diverse spectrum of shapes and sizes, as at Kwidzyn. It is clear that a range of ceramic forms was in use, alongside wooden dishes that rarely survive, but the diversity of functions remains a matter of speculation. A pilot project utilising the isotopic analysis of residues from medieval ceramics recovered from the settlement at Biała Góra (see below) was undertaken by Lisa-Marie Shillito at the University of York in 2012, and may provide more detailed information about vessel use.

In Gdańsk, the ceramic reference collection and its detailed typology was developed by Bogdan Kościński after several decades of excavation. Early ceramic fragments from the ninth and tenth centuries are typically Pomeranian hand-made wares and partly finished on a turntable, bi-conical in form and



(a)



(b)

FIGURE 3.5 Medieval 'greyware' ceramic vessels recovered from excavations in Kwidzyn (Marienwerder) now on display in the castle museum (a) and *in situ* in a pit at the site of Biała Góra (site 1) (b), less than 25km to the north

open-fired. In the tenth century, a broader range of ceramic forms, thrown on a faster wheel, are increasingly evident, with fine-grained temper and thinner walls. They are accompanied by potters' marks and a standardisation of vessel forms and decoration. At the start of the thirteenth century, greyware begins to appear in archaeological contexts, as well as new vessel forms typical of northern Germany. By the mid-thirteenth century, specialised ceramics had taken over the market, displacing earlier traditions; glazed vessels and pottery become more common from the latter half of the fifteenth century (Paner, 2006, p. 418). Other ceramic forms associated with colonisation have been studied at Kołobrzeg, where greywares appear from the mid-thirteenth century (Rębkowski, 1995). Elbląg, Gdańsk and Kołobrzeg represent the key sites where ceramic typologies associated with the colonising period have been most developed. Elsewhere, dating schemes are not always clear and have been disputed (Kowalczyk-Heyman, 2006b, p. 224, note 22). This is particularly the case where ceramic fragments do not display decorative elements, such as parts of the base and, as a result, they are identified on the basis of their colour, texture, thickness and composition as seen in the cross-section. Moreover, the shift from early- to late-medieval, locally produced wares remains to be studied beyond the major urban enclaves.

This type of ceramic continues in use, in Prussia, until the sixteenth century when it becomes replaced with early modern wares, although it is possible to differentiate thirteenth-century vessels from late-medieval ones on the basis of their form and particularly their thickness. The greyware produced within Prussia is also widely referred to as 'Teutonic Order ceramics' (Polish *krzyżacka ceramika*), although this merely identifies it with the period of the Teutonic Order's state, since brothers of the Order were themselves not involved in the manufacture of ceramics. However, there is an ethnic association with this greyware. This form was introduced by colonists and is found in settlements of all types, from castles and towns through to rural manors and villages. It is so distinctive and so different from earlier Baltic ceramics, that it is routinely used to identify the presence of the Teutonic Order, colonists associated with the Order's state or trade between the local indigenous community and the Order or incoming colonists. In this respect this differentiation has been extremely useful for understanding the impact of the crusades on Prussian society, although the nuances are particular to each site. For example, in 2011, excavations at the Galindian stronghold in Święta Góra uncovered a feature with a fragment of greyware, suggesting that the site may have been occupied into the crusading period and during the construction of the Order's castle at Lötzen (Giżycko), perhaps even reflecting trade between the Prussian community and the Order's settlement (see below).

It is easier to identify imported ceramics that have been studied and typologised in some detail, particularly by David Gaimster (for a good summary see Gaimster, 2011). The most commonly occurring imported ceramic in Prussia is 'redware' originating from the Rhineland and it is largely found at town

sites, rather than in castles (see also chapter 5). Interestingly in North Livonia (southern Estonia), excavations at castles rarely produce local wares but instead are dominated by imports, suggesting some form of segregation from the indigenous population (Valk, pers. comm.). This may reflect the ethnic differences between Prussia and Livonia that develop following the crusades. The relationship between the incomers and the indigenous Prussian tribes is by no means a closed matter, and archaeology can potentially significantly contribute to furthering our understanding of the ethnic changes that took place as a result of the crusades.

To date, some systematic studies of medieval ceramics from Prussia have been conducted on material from major town excavations (e.g. Gdańsk, Elbląg and Toruń), but no systematic study for the Order's state has been attempted. The issue of chronology could potentially be resolved through a combination of absolute dating methods focusing on discrete contexts or features from a range of sites within each commandery. This includes using coins contained within ceramic vessels to provide them with a more specific chronological context, in other words *a terminus post quem* (Januszkiewicz & Odoj, 1997, p. 206). Using a similar approach it would be equally useful to identify where, and for how long, indigenous ceramic traditions persisted. There is also evidence for combined forms as an expression of cultural hybridity referred to as 'transitional' wares, although the extent to which surviving indigenous communities adopted the new forms may be difficult to demonstrate. Wheel-thrown technology was known in Prussia before the crusades, but it is likely that with the introduction of new technology came the gradual abandonment of the old ceramic tradition, resulting in regionally standardised products. Clearly questions concerning the relationship between the colonising and the colonised will have to be approached from multiple perspectives. Dariusz Poliński (2006) has also drawn attention to the problems of late-medieval ceramic typology in the Kulmerland, although this is also an issue for the Prussian interior (Auch & Nowakiewicz, 2009).

In summary, ceramic vessels from the Teutonic Order's state are routinely recovered from archaeological sites in North Poland, the Kaliningrad and western Lithuania, and remain an extensive and potentially valuable resource within museums. Moreover, as one of the most abundant artefact types, ceramics will remain the main source for dating medieval sites in Prussia. Where pottery occurs with coins, timbers that can be dated with dendrochronology or material that can be radiocarbon-dated such as seeds recovered from secured contexts, it is possible to refine the chronology of its broader group (Poliński, 2006, pp. 171–172). Coins provide the second most common means of dating sites in the Order's state, but they occur sporadically and relatively infrequently compared to pottery.

Coins

The Order was organised enough in the mid-thirteenth century to start minting its own coins, specifically for use within its Kulmerland territories (for the

most detailed synthetic work on the Order's coins with a full chronology see Paszkiewicz, 2009; Waschinski, 1934). These coins are relatively simple, small bracteates stamped with the cross of the Order on one side, although given the thinness of the metal this symbol was also visible on the reverse side. They have been used to date the earliest phases of sites (e.g. Kaldus, see below) within the developing *Ordensstaat* and support the notion that crusading, colonisation and a supporting infrastructure went hand in hand from the earliest years of the Crusade. A fully functioning monetary economy took several decades to develop (see also chapter 4). The Prussian use of raw precious metals as a form of currency was supplemented by the Order's coins. Ingots, valued by weight, continued to be used alongside coins in the late-thirteenth century, whilst the documented use of coins significantly increases in the Order's state from the fourteenth century as evidence for payment in raw silver and gold vanishes (Paszkiewicz, 2009, pp. 55–56). The form of the cross on the Order's early coins points to iconographic influences from northern France and its early adoption on one of the most important expressions of the Order's identity can be directly linked to the crusading ideology of the military orders. Coins found on medieval sites from the mid-thirteenth century are used for both dating and defining the presence of, or contact with, the Teutonic Order.

Dendrochronology

Timber structures often survive in the flooded soils of the southern Baltic, and sometimes these can be dated using dendrochronology. In the case of the Teutonic Order's castles, timber was widely used to provide stable foundations in waterlogged terrain, and in a number of instances fragments of palisades, walls and bridges have been recovered from these sites. At the castle of Tuchola (Tuchel), excavations in the dry moat between the high and middle castles uncovered transverse timber structures used to strengthen the waterlogged soil. Excavations in Malbork castle have uncovered parts of wooden bridges and foundation posts. However, the most extensive dendrochronological sequence in Prussia comes from the early phase of Elbląg (see also chapter 5). Castles, town buildings and churches constructed especially in the fourteenth and fifteenth centuries are more regularly dated by their architectural elements, particularly the morphology of their bricks.

Brick

Brick is used in Prussia as a building material from the mid-thirteenth century and the earliest examples are defined by their size. Large bricks were being introduced across central Europe by the Cistercians, Dominicans and Franciscans, appearing in Masovia in the first half of the thirteenth century (Brykowska, 2002, p. 33). Brick was also increasingly used across Poland at this time and the reign of King Casimir the Great (1333–1370) saw an intense period of building and upgrading earlier structures in this medium (Wyrobisz, 1963, pp. 67–69). Late medieval

bricks tend to be smaller. In Gdańsk (Danzig), for example, from the fourteenth to fifteenth century their thickness changed from 10.5cm to 6–7cm, their width from 15–16cm to 12cm and their length from 32–33cm to 26–27cm (Paner, 2001, p. 499). One of the few written references to brick morphology comes from 1423, when the Grand Master specified a standard for brick size, translated as $30 \times 15 \times 7.5$ cm. However, the general assumption that bricks become increasingly smaller from the fourteenth century has been challenged. Comparative studies of thirteenth- to sixteenth-century brick structures in Greater Poland demonstrated that establishing a regional chronology was problematic, and that the use of bricks for dating should be focused on individual structures and their vicinity (Żemigła, 2008), although no comparable studies statistically mapping brick morphology on medieval Prussian sites have been published. In some cases, as in Tczew (Dirschau), there is an evident mixture of brick sizes incorporated within the same phase of building which makes dating on the basis of morphology problematic and also draws attention to the importance of sourcing building materials. Another possibility is that different teams worked on multiple parts of a castle simultaneously, resulting in composite styles which are contemporary with each other rather than diachronic. Were bricks produced locally or imported from nearby or distant brickyards? The style of laying bricks, where they have survived intact *in situ*, has also traditionally been assigned a relative chronology. The thirteenth-century Wendish bond – bricks laid in sequences of two stretchers and a single header – was slowly replaced by the Dutch/Flemish bond in the fourteenth and fifteenth centuries (earlier in southern Poland), which consisted of alternate headers and stretchers, with subsequent courses offset to position headers between stretchers. However, evident regional differences invite more detailed investigation. Dating bricks would perhaps be most useful where they are discovered in archaeological contexts, providing there is comparative reference material from nearby structures and there are broad differences between thirteenth-century and later bricks. Prussian bricks have not been subjected to any thermoluminescence or re-hydroxilation dating (Wilson *et al.*, 2009), and it may be possible to refine their chronology in the future. Although primarily used for dating, hand-made bricks can also provide important information on the process of construction, as well as indirect evidence of the nearby presence of plant material and animals. Impressions of paw prints, largely made by dogs and cats, have been observed at a number of sites (e.g. Radzyń Chełmiński, Malbork).

Other forms of dating

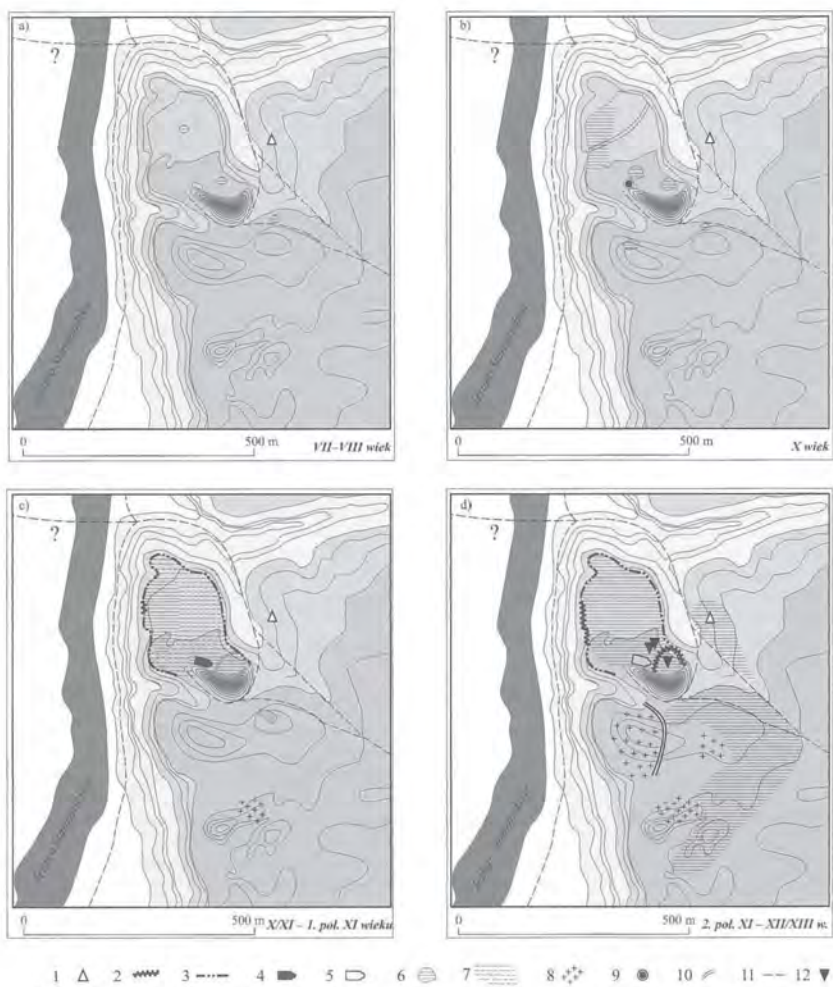
A range of artefacts has also been used to provide comparatively specific and broad date ranges. These include iron caulking clamps, stirrups, jewellery and dress accessories deposited in graves, as well as weapons and armour. They also include architectural elements, which are dated according to similar forms in neighbouring regions, particularly in eastern Germany. The use of brick and stone in building construction in Prussia is predominantly associated with the

incoming colonists; Prussian use of stone was restricted to some house foundations and occasionally as preparation surfaces under floors within dwellings, particularly in Sambia (Okulicz-Kozaryn, 1983, p. 104). Certain artefacts were also introduced which were not used by the indigenous Prussians, such as horse shoes (*ibid.*, p. 221). As with ceramics, the most detailed artefact typologies are based on major urban assemblages and, particularly for the early-medieval period, cemeteries.

The development of the Teutonic Order's state in the thirteenth century is marked by the establishment of strongholds/castles and settlements which varied regionally. This, in turn, was related to the direction and progress of the Crusade. The most important sites are outlined below, grouped according to region, whilst the process of urbanisation is covered in more detail in chapter 5.

The Kulmerland: the first frontier

From both an archaeological and historical perspective, the Kulmerland is one of the most intensively studied regions of the early-medieval Slavic-Prussian frontier and the subsequent Teutonic Order's state (Figure 3.6). The proto-urban centre at Culmine (Kaldus) was abandoned in the early-thirteenth century, although there is no definite evidence that it was ever the target of Prussian incursions. Settlement and communications in the Kulmerland at this time were administered by a dozen strongholds, although only the site at Kulm itself possessed what can be described as urban features (Poliński, 2003, p. 129). The development of the legal and provisioning infrastructure set up by the Order along the Vistula and lower Osa was in fact a continuation of the initiatives taken by the bishops of Płock and Włocław (Biskup, 2002a, p. 132). In the Kulmerland, Konrad of Masovia and the Bishop of Płock handed over territories and sites to Christian in the early-thirteenth century, including *quondam castra* (former castles). Between 10 and 12 strongholds dating to this period have been identified archaeologically and with the documented sources the total amount may have been between 14 and 20 (Poliński, 2003, p. 128; but see also Janowski, 2007). The crusades of 1222 and 1223 succeeded in only temporarily restoring Masovian control over the Kulmerland; Prussian raids struck again the following year. In 1226 or 1228, a small fortification was constructed opposite the stronghold of Postolsco, manned by a garrison of two Teutonic Knights and named Vogelsang. This was overwhelmed by a Prussian army and prompted the rebuilding of the stronghold at Nessau (Nieszawa) on the southern bank of the Vistula; no traces of the earlier fortification have been found at the site of the castle constructed in the mid-fourteenth century (Poliński, 2007, pp. 43, 50-51; Dygo, 2008b, p. 64). The following year, the Order constructed a stronghold on the other side of the Vistula at Thorn, which soon stimulated the growth of the town. In 1236, the town and the fortification were relocated 10km to a location less prone to flooding (Czaja,



Kaldus, Kujavian-Pomeranian Voivodeship. Subsequent development phases of the Kaldus settlement complex in the Early Medieval Period. Legend: 1 – erratic stone; 2 – dyke; 3 – supposed dyke; 4 – basilica; 5 – the ruins of the basilica; 6 – settlement limits; 7 – supposed settlement limits; 8 – graves; 9 – supposed offertory site; 10 – ditch; 11 – roads; 12 – horse burials (acc. to W. Chudziak 2003)

FIGURE 3.6 The chronology of the settlement complex at Kaldus in the Kulmerland; (a) seventh to eighth century; (b) tenth century; (c) tenth to first half of eleventh century; (d) second half of eleventh century to twelfth/thirteenth century (aft. Chudziak, 2003 in Makowiecki, 2010, p. 29)

2009, p. 179). This was the beginning of a surge of building military installations which also served as administrative centres and stimulated settlement development.

The construction of fortifications was strategic, particularly in the area of the Drwęca in the commandery of Strasburg and Gollub which bordered with the Dobrin Land and Masovian territory. By the end of the thirteenth century, a large number of *castra* had been built in a relatively small area (Gancewski, 2001, p. 14). The subsequent process of colonisation reinforced the Order's defence network around the River Osa. The earliest castles were offensive structures, aimed at securing territorial gains and facilitating Christianisation. They had to be built quickly and there is evidence that existing indigenous timber constructions were re-used and incorporated into the Order's new fortifications. The Kulmerland continued to be an unstable region for many decades, suffering incursions from Prussians and Lithuanians, the last of which was led by the Sudovians in 1277. The migration of German settlers into the Kulmerland only really began in the late 1280s (Biskup, 2002, p. 132). In this first phase of colonisation from 1230–c.1343, 328 rural settlements are documented in the Kulmerland (Poliński, 2003, p. 10) and, despite continuing hostilities with neighbouring Poland, the Teutonic Order maintained tight political control over this region until 1466. The earliest sites associated with the Order are at Bierzgłowo (Birgelau), Grudziądz, Kowalewo Pomorskie (Schönsee), Pokrzywno, Radzyń Chełmiński (site 1) (Rehden), Starogród (Althausen Höhe; part of the Kulm series of sites) and Toruń. These formed important centres at a time when the Kulmerland was governed by a regional commander, a post dissolved in the mid-1330s (*ibid.*, p. 24). Here, only a few sites are discussed in further detail; all were constructed within or in close proximity to earlier Slavic strongholds.

The Kulm Complex: Colmen, in Culmine (Kałdus), Starogród and Kulm (Chełmno)

The final phase of occupation at Kałdus is datable to the second half of the thirteenth century, as suggested by ceramic fragments and a Teutonic Order bracteate (Chudziak, 2003). Historical sources point to Kałdus as the most likely site of the castellan's stronghold of Colmen attached to the settlement in Culmine, which suffered Prussian incursions in the decades leading up to the crusades and throughout the thirteenth century (see also chapter 2). This final phase has been identified with the Order's short-lived stronghold of Potterberg which was dismantled and the materials used to build the fortress at Mewe in 1282 (*ibid.*, p. 179). The *castrum* at Starogród, in close proximity to Kałdus and Chełmno (Kulm), is mentioned in 1232 and quickly became an important administrative centre in the Kulmerland and would become the focus of a commandery. The castle, built on the site from 1244, was dismantled in the eighteenth century with only traces of the moat system evident in

the landscape. Excavations from 1963–1964 revealed fragments of the later structure, but also a layer of clay with traces of wattle that was difficult to positively link to either the early stronghold or the gothic castle (Poliński, 2007b, pp. 45–46). Following the abandonment of the settlement at Kąldus, the Order founded Kulm to the north which would be granted town rights in 1233; a castle garrisoned by the Order was attached to the town by the 1240s. The later castle was dismantled in the eighteenth century but the so-called ‘tower of Mestwin’, which contains late Romanesque elements, is most likely related to this early phase of fortification; it was later incorporated into the Cistercian convent (Mroczo, 1974, p. 286). The town was relocated in 1251 and built using the new ‘Kulm foot’ (28.8cm), situated on an irregularly shaped upland which influenced the town’s plan, enclosed by a circuit of walls constructed from around 1267. The town plan incorporated an existing Dominican church and friary, documented as being present in Kulm from at least 1244 (Mroczo, 1974, p. 286); late Romanesque elements were noted in the porch of the Dominican church (now demolished). The orientation of the church of the Virgin Mary on the other hand, which deviates from the symmetry of the mid-thirteenth century town plan, is suggestive of an earlier structure associated with the first phase of settlement. The church also contains a font from Gotlandic stone which can be dated to c.1230 and earlier foundations have been exposed during occasional excavations in the vicinity of the churchyard and street.

Thorn

On the site of the Order’s castle was a Slavic stronghold situated on an outcrop overlooking the Vistula, which appears in the seventh century and is fortified with a timber and earth (sand) embankment in the tenth century. To the west of the stronghold was an associated settlement, the remains of which were largely destroyed during the construction of the castle moat. The stronghold was abandoned at the start of the twelfth century, perhaps as a result of Prussian incursions. However, the settlement appears to have continued in some form into the first half of the thirteenth century. The Order’s first fortification here may have focused on an area of resettlement that has yet to be defined archaeologically. The horseshoe-shaped embankment of the former Slavic stronghold protecting the landward side of the settlement guided the form of the Order’s castle, although this was constructed as an enclosed structure (Chudziakowa, 1983, pp. 17–19). In 1250, the fortification was partly surrounded by a stone wall attached to the main brick castle (Poliński, 2007b, p. 246) and, thirteen years later, a chapel was added to the complex; the whole integrated into the defences of the town.

The town, founded in 1233, was relocated from its original area three years later to the west of the former Slavic stronghold, although it was only granted Kulm rights in 1251 following a fire. Thorn was granted a two-mile stretch

of the Vistula which included five islands and, by the end of the thirteenth century, its property encompassed an area of 5,530 hectares; this included a significant amount of woodland enabling animal husbandry to be developed, particularly goats and pigs, but also horses and cattle, as well as gardens and, on the warmer banks of the Vistula, vineyards (Czacharowski, 1983, p. 37). The Old Town was planned according to the old foot of 31.3cm; the new foot was used in the New Town established in 1264. Peter of Dusburg describes the town as having a *murus* (wall), although it has only been possible to date the earliest surviving fabric of the town wall to the second half of the thirteenth century with an assumption of a preceding timber and earth embankment topped with a palisade (Kowalczyk-Heyman, 2006b, p. 224; Mroczko, 1974, p. 296). Brick walls were constructed around the western and northern sides of the town at the end of the thirteenth century between the Old and New Towns and at the start of the fourteenth century along the riverside; with the exception of this southernmost stretch, the defensive circuit consisted of double walls and a ditch (Czacharowski, 1983, p. 47). The walls were punctuated with towers and gatehouses, of which two were strengthened in the fourteenth century with barbicans. The New Town's walls and three gatehouses were constructed after the Old Town, although both formed a unified, integrated circuit along with the Order's castle.

The presence of burned structures, dating most likely to the 1260s, indicates this oldest part of the town was destroyed by a fire although buildings were quickly replaced. In 1259, permission had been given to construct a trading house, uncovered in the place of the later town hall. This was a 43.5m-long, single-storey building, most likely used by cloth merchants. In 1274, the Order allowed the town to build a second building which contained stalls. The town hall tower began to be constructed at the same time, and the rest of the building followed at the end of the thirteenth century with the construction of a municipal court finishing the complex (*ibid.*, p. 45). Religious institutions appeared quickly. In 1239, a Franciscan convent was established on the western periphery of the town, which constructed its own church dedicated to St Mary the Virgin, of which only a small fragment of the north wall of the presbytery survives. On the northern side of the New Town, the Dominicans established a convent and built the church of St Nicholas (see also chapter 6). The town was served by the parish church of St John the Baptist, initially a timber structure, and from the mid-thirteenth century this was gradually replaced by a brick building. The New Town would have its own parish church dedicated to St James which would only begin to be built in 1309.

Graudenz (Grudziądz)

The Slavic stronghold, situated across an escarpment overlooking the Vistula, may have been occupied into the early-thirteenth century (Poliński, 2003, p. 128). Excavations in 2009 led by Marcin Wiewióra identified multiple

occupation phases within the castle precinct, underneath the Order's brick constructions, dating from at least the seventh to thirteenth century and to earlier prehistory, with recovered ceramic fragments from the Hallstad period. Elements of the early castle from the second half of the thirteenth century were uncovered, as well as the western part of the southern wing of the later castle, which partly collapsed down the escarpment in 1388. In the southern area of the site, there were traces of an intensive early-medieval settlement. This included an area where food was processed, strikingly represented by a compact horizon of fish scales. The stronghold appears to have been levelled by the Order during the construction of the later castle from the mid-thirteenth century, which was built directly on top of previous occupation layers. It consisted of an irregular quadrangle enclosing a courtyard with a concentric tower. The surroundings were also modified in the process, which included deepening existing gullies to the north of the outcrop. The castle was dismantled at the start of the nineteenth century resulting in significant taphonomic disturbance, particularly to occupation deposits dating from the mid-thirteenth to the late-sixteenth century (Wiewióra, 2012). Comprehensive reconstruction and dating of the thirteenth-century site is therefore extremely difficult; much was destroyed by subsequent truncations and some parts cannot be excavated, such as those areas covered by debris from the demolished western tower and the gatehouse which is under the only road leading into the site. However, it appears the early brick castle had an irregular layout, perhaps reminiscent of the Order's castle in Thorn. By the fourteenth century, the complex was separated from – and communicated with – the town below by an outer bailey in its south-eastern corner (Haftka, 1999, p. 120).

Rehden (Radzyń Chełmiński)

The Slavic stronghold at Radzyń (site 2) was occupied from the late-ninth century into the mid-twelfth/early-thirteenth century where a layer of burned timber points to its destruction, most likely by a Prussian attack (Chudziak, 1994). It is possible Peter of Dusburg referred to this stronghold as the *castrum* established by the Order here in 1234. The later castle, built 500m west of the former stronghold, is unlikely to have been built on another earlier stronghold in such close proximity and the brick structure may have been located in relation to the town (Poliński, 2003, pp. 123, 181), but very little has been recovered from this earliest phase in either the castle or the town; most recently excavations within the castle by Daniel Gazda and Marcin Wiewióra revealed post-medieval cellars had truncated earlier phases. The choice to establish a fortified point here was strategic. The site itself was surrounded by wetlands and guarded the frontier between the north-east Kulmerland and Pomesania; however, the extent to which the Knights were drawn to the earlier stronghold remains unclear. It is, however, likely that the Order acquired knowledge of the existing system of fortifications, key communication routes and strategic points

in the landscape from their Masovian allies. The striking red brick castle that survives was largely constructed in the fourteenth century along with significant reshaping of the surrounding landscape to create two moated outer baileys.

Engelsburg (Pokrzywno)

In the second half of the twelfth century until the start of the thirteenth century, there was a Slavic stronghold here, identified as *Copriven* which had been granted to Bishop Christian in 1222 (Haftka, 1999, p. 238). In the process of the construction of the Order's castle, the stronghold was completely destroyed. Excavations within the high castle courtyard revealed early- and late-medieval occupation phases, significantly affected by the building and dismantling of the castle in the eighteenth and nineteenth centuries. Part of a timber and earth embankment in the high castle area may have belonged to the earlier stronghold or the Order's fortification first mentioned in 1237 (Poliński, 2003, p. 208). The brick and stone castle was built in the last quarter of the thirteenth century and functioned as the main seat of the commander of the Kulmerland. The irregularity of the layout of the high castle and its two outer baileys most likely reflects the influence of the topography and the likely siting of the early-medieval stronghold which had been built on an outcrop with steep slopes on its north-eastern and eastern sides, surrounded by two streams and boggy terrain. Surviving fabric from the early castle has been identified by brick typology and architecture, with parts of the eastern wall preserving fragments from the thirteenth-century phase.

Consolidating castles and settlement in the Kulmerland

The majority of castles constructed in the Kulmerland were established as centres of commanderies; indeed, this region had the densest concentration of fortified structures in the Order's state by the end of the thirteenth century (Mroczko, 1974, p. 299). Dariusz Poliński (2007c) has linked the development of castles in the Kulmerland to the changing political and military situation. Until the mid-thirteenth century, this was a very volatile region subject to Prussian and Pomeranian incursions. Many of these early fortifications were destroyed by Prussians, particularly during the 1242–1243 rebellion. The *castrum* at Rogasen (Rogóźno) was given to the Order in 1250–1260 and was strategically situated on the road leading further into Prussian territory. In 1972, traces of a wooden construction were unearthed here, partly destroyed by fire and levelling of the site. The earliest structure, which included a timber and earth embankment, was rebuilt in brick and stone in 1275 (see Poliński, 2003). In the last decade of the thirteenth century, there was more investment in strategic building works reflecting the development of the Order's administration, the need for better defences and an improved economic situation. In 1293–1295, the first timber and earth fortification at

Gollub was constructed and Peter of Dusburg refers to a *castrum* here in 1296. Excavations revealed the remains of a burned layer with charred timber, along with ceramics from the last quarter of the thirteenth century – most likely the remains of the Order's timber and earth embankment. The brick castle was constructed around 1300 (Poliński, 2007a, p. 250). At Papowo Biskupie (Bischöflich Papau), the oldest known regular quadrangular castle in the Order's territories was constructed between 1287 and 1292 from field stones and brick. Although the above-ground fabric is well-preserved, subsequent phases of occupation have destroyed or obscured the earlier deposits (Wiewióra, pers. comm.). Many sites in this densely settled regions have not been investigated in detail. Most recently sustained archaeological investigation in the Kulmerland has focused on the multi-period site of Pień; a stronghold documented as belonging to Bishop Christian until it passed briefly into Pomeranian hands and, from 1248, it is listed as a property of the Teutonic Order. Excavations revealed early-medieval layers and remains of an early-fifteenth-century structure, but whether this site was continuously occupied during the late-thirteenth and fourteenth centuries remains unclear (Poliński, 2007b, p. 333). The process of settlement which increased in the latter decades of the thirteenth century also saw the establishment of private knightly estates. At Bachotek near Zbiczno, the motte was built at the end of the twelfth/start of the thirteenth century and, in the second half of the thirteenth century, a wooden tower serving as a fortified residence was constructed, typical of rural Polish knightly residences and those found in parts of western Europe (Kola, 2002, p. 160).

The Vistula Delta and fens: the frontier with Pomerania

The Vistula Delta or Żuławy Wiślane can be sub-divided into three fen regions: the Żuławy Gdańskie, between Gdańsk and the Vistula; the Żuławy Wielkie or Malborskie, between the Vistula and its tributary the Nogat; and the Żuławy Elbląskie, east of the River Nogat. This was a frontier region from the tenth century, when the expansion of the Piast state prompted the construction of strongholds in the Delta region up to the coast (see also chapter 2). East of the Vistula lay the Prussian tribal territories of Pomesania and Pogesania. It is generally accepted on the basis of archaeological evidence and place names that Prussian occupation of the Delta region was confined to the Nogat and eastwards, although some temporary or small-scale settlement could be found within the Slavic regions to the west. South towards the Kulmerland, Prussian communities were equally sporadic by the thirteenth century, whilst Slavic settlement could be found between the Vistula and Dzierżgoń rivers (Powierski, 2001, pp. 157–158). The most important Slavic centres here were Węgry, near Malbork, and further south the strongholds at Podzamcze and at Kwidzyn (Haftka, 1982). Three Pomeranian strongholds have also been identified on the banks of the lower Dzierżgoń. These differences in material culture on

either side of the Dzierżgoń and the Sztum Forest point to the location of the expanding Slavic westward frontier with Pomesania, with major strongholds from Kwidzyn to Gdańsk connected by roads. The fact that occupation of these sites only continues into the twelfth century may reflect their abandonment in the wake of Prussian incursions several decades before the crusades.

The decline of multi-cultural Truso heralded a more unstable relationship between western Prussians and Slavs (see also chapter 2), which culminated in the appropriation of this territory by the Teutonic Order. The locations of Prussian sites in North Pomesania encountered by crusading armies are referred to in the later chronicles, especially by Peter of Dusburg, but archaeologically there are a series of mounds which could qualify at Kalwie, Stary Targ, Tulice and Minięta; the latter two have not been physically verified and are only known in literature. At the fort in Kalwie, excavations in 1973 revealed two phases of occupation: from the ninth to twelfth century and in the first half of the thirteenth century (Długokęcki & Haftka, 2000, p. 80). Peter describes how a castle (*castrum*) was built near the river Mockera (Postolińska Struga today) along with a watch tower (*propugnacula*) in Stuhm (Sztum), Riesenburg (Prabuty), Obrzynowo and Willenberg (Wielbark). In 1928, a number of mounds in the vicinity were identified by the excavator of Kwidzyn, Waldemar Heym, as 'Prussian', and one as the location of a tower. As the Order moved into the north-east part of the region in the late 1230s, it constructed castles and recycled destroyed Prussian strongholds (Kochański, 2001, p. 467). The complex at Weklice, east of Elbląg, was a crucial defensive point against the Teutonic Order. It consisted of three fortifications situated within a few metres of each other, located on an elevated outcrop. All were dated to the twelfth to thirteenth century, with a noticeable absence of later ceramics. Excavations in 1982–1983 at Weklice 2 (Zamkowa Góra) targeting the main entrance revealed the burned remains of a tower in the outer ramparts, stone foundations under the bridge joists and parts of a building by the embankment and gate tower. Excavations through the inner and outer moats, and the outer embankment, revealed the foundations of a wall constructed from field stones held together with clay which initially covered the top of the embankment. There is nothing that can clearly link these remains with the documented fortifications of the Teutonic Order, although the site was described as having been overrun by the Order after which one of the associated forts was destroyed by the Prussians during the Great Prussian Uprising (Pawłowski, 1991).

The region remained a frontline between Pomeranians and Prussians, both at war with the Order throughout much of the middle decades of the thirteenth century. The most important sites associated with the Order's early phase of colonisation, which have been the focus of archaeological investigations, were Marienwerder, Mewe, Christburg, Biała Góra (tentatively identified as Zantir) and Elbing. All of these fulfilled important administrative functions in the thirteenth century as early commandery centres, whilst Marienwerder would become the headquarters of the Pomesanian bishops. The great castle of Marienburg began to be constructed from at least the 1280s, but very little is

known about its early form and it would not become a significant centre until the consolidation of the *Ordensstaat* in the fourteenth century.

Marienwerder (Kwidzyn)

Peter of Dusburg described the building of the first Teutonic fortification on a fenland isle named Sankt-Marienwerder in 1233 (and also Christburg in 1283) as consisting of prepared materials enabling rapid construction, a process that has been compared to William the Conqueror's shipment of building materials from Normandy to England in 1066 (Arszyński, 2005, p. 127). The early fortification was shortly relocated to the top of the nearby escarpment and became the subsequent base for crusading armies to attack Pomesania. The early fortification was allegedly rebuilt at the site of the Prussian stronghold named in Latin Quedin and became an administrative centre for the Order (Haftka, 1999, p. 143). A settlement developed next to the timber and earth castle, although this was destroyed during the first Prussian insurrection (1243), and subsequently the castle was replaced with a brick and stone structure which was able to withstand two further documented sieges. Excavations by Waldemar Heym at Starozamkowa Street in 1928 supposedly revealed traces of the earlier Prussian stronghold; timber and earth fortifications were uncovered but were not linked to any particular group. However, this could not be verified in later excavations in 1987. The castle had been destroyed and dismantled in the sixteenth century, and very little is known of its thirteenth-century phases. In the outer bailey, the remains of a timber and walled structure dating to the thirteenth and fourteenth centuries were uncovered, encompassing the earliest phase of the Teutonic Order's fortification (Pawłowski, 2004). The excavations revealed the re-use of existing indigenous timber constructions, and may relate to the rebuilding of the settlement after its documented destruction by the Prussians in 1242. Whilst the early settlement remains largely unknown, in 1250 the castle and settlement were acquired by the Pomesanian Bishop Ernest of Forgau and subsequently developed as an episcopal centre. No trace of the early timber church has been found, although it may lie underneath the later cathedral which became integrated with the new castle of the Pomesanian Chapter in the early-fourteenth century (Haftka, 1999, p. 145; see also chapter 6). Not far from Marienwerder, the Order constructed a fortified watch tower in 1234 at Podzamcze. This consisted of a motte, separated by a moat at its front with a three-storey timber tower built on stone foundations. The fortification, which is not mentioned in written sources, appears to have been occupied until the first Prussian insurrection. Marienwerder was described as being situated within marshy fenlands, overlooking the floodplain of the Vistula. No detailed environmental archaeology has been carried out in the vicinity of Kwidzyn, although it is clear the land began to be drained with the construction of embankments, after which it was possible to construct roads connecting with the castle at Mewe in the fourteenth century (Powierski, 2001, p. 165).

Christburg (Dzierzgoń)

The Teutonic Order's castle at Christburg would become an important commandery centre and the setting for the signing of the treaty marking the end of the first Prussian insurrection in February 1249. Archaeological investigations, primarily in the 1930s and late 1990s, have shed some light on the documented sequence of events associated with the site and its hinterland in the thirteenth century. At Alt Christburg, a few kilometres south of the later commandery centre, the Pomesanian stronghold situated on the highest point in the landscape was acquired by the Order, most likely during the winter campaign of 1234; the following year crusades were being launched from here. The stronghold was defended by high embankments except on its western side where the River Dzierzgoń formed a natural barrier. Excavations in the 1930s and in the last decade, as well as earlier field walking, revealed the site was occupied by Prussians from the ninth century, although settlement in the vicinity is evident from at least the seventh century. The stronghold, serving as a refuge, may have been defended by a palisade until the construction of embankments in the 1230s, the largest of which protected the eastern side of the complex and was reinforced with a moat. The Order strengthened the fortifications of the stronghold by raising the height of the embankment and deepening the moat, followed by the construction of a fortified timber gatehouse on the site of the former entrance and a six-sided tower. An outer line of embankments may have been left unfinished, perhaps as a result of the Prussian Insurrection (Szczepański, 2008). When (new) Christburg was established as the headquarters of the commandery in 1248, as well as the residence of the Great Hospitaller and an important point on the road linking Marienwerder with Elbing, the earlier site lost its significance. However, it continued to be occupied for a short period as suggested by a pottery kiln, ceramic fragments and the remains of a tower constructed from small field stones cemented with clay. By the early-fourteenth century, it was a point of orientation for local settlement boundaries and a memory of the crusading period. The castle and town of Christburg itself is relatively poorly known from an archaeological perspective (see Haftka, 1999, pp. 75–80), although excavations from 1998–2001 led by Antoni Pawłowski revealed various elements of the brick and stone castle rebuilt in the 14th century, along with an abundance of material culture (Pawłowski, 2003). The reconstructed plan of the castle suggested it was irregular in shape, rather than conforming to the standardised conventual form (Pawłowski, 2007).

Mewe (Gniew)

In the second half of the eleventh century, a settlement was established in the area that would become medieval Mewe, which continued to be occupied until the town was established. The area around Gniew saw the rise and abandonment of three strongholds; the latest at Dymbowie (between Cieple and Gniew)

was burned at the start of the thirteenth century. Along with the rich material discovered at Cieple attesting long-distance trade, it is clear this was a major centre of communications along the Pomeranian–Prussian frontier (Powierski, 2001, p. 166). From 1229–1233, the settlement and the surrounding territory (*terram Gymeri*) was the property of the Cistercian abbey at Oliwa but, following tensions between the Pomeranian Duke Sambor and the monastery, the territory was bequeathed to the Teutonic Order in 1276 with the grant confirmed six years later (Bruski, 1998). Excavations at the stronghold at Cieple uncovered the remains of a timber and earth embankment with a burned layer, dating to the first half of the thirteenth century. In the north-west, traces of a moat were visible. The site represented the first Teutonic Order castle in this area, made from prepared materials most probably recycled from the disassembled castle of Potterberg, as described by Peter of Dusburg (Kochański, 2001, p. 466). Since it was not possible to flood the moat, the defence of the site had to be organised differently (*ibid.*, p. 468). From 1283, the Order began to construct the castle overlooking the settlement of Gniew and, with the influx of German colonists employed in the building works, the ethnic character of the Pomeranian complex began to change. In 1297, the town was organised under the Kulm Law and its medieval plan has remained more or less unchanged. Excavations at the Wzgórze Staromiejskie from 1975–1976 revealed multiple phases of occupation from the second half of the eleventh century through to the fifteenth century. The late-thirteenth-century phase associated with the Teutonic Order's presence revealed that the area around the market square had been levelled, a process of preparing the terrain for new buildings that would happen again in the first half of the fourteenth century (Choińska-Bochdan, 1990). In the outer bailey of the later castle of Gniew, there is evidence for the strengthening of the foreshore as indicated by the discovery of three slanting posts with fascines. Mewe would become an important base for launching attacks into Pomerania in the early-fourteenth century, but it also provided the Teutonic Order with another point of access on the lower Vistula.

Zantir and Biała Góra

The case of Zantir (or Santyr) encapsulates some of the complexity associated with tracing the early activities of the Teutonic Order in Prussia. The written sources state Bishop Christian established his settlement, mission and cathedral here, and that it was located in the contested borderlands affected by Prussian incursions in the early-thirteenth century. In the early years of the crusades, the Teutonic Order took possession of this site whereupon it became the main administrative centre for the region of Pomesania, and perhaps even Warmia. In the early 1240s, Zantir was procured by the Pomeranian duke during his war with the Order, and subsequently returned to their possession in 1248–1249. The convent features in documentation from the 1250s, and is last mentioned in 1280. Peter of Dusburg (*Chronicle*, III: 208) would later

write that in this year the convent was trans-located to Marienburg; whether this simply refers to the movement of administrative functions or to the actual recycling of building materials is unclear (Pollakówna, 1997). In summary, Zantir represents a short-lived but extremely important commandery centre for the thirteenth-century crusading period. The settlement continued to function; it is mentioned a few times in fourteenth-century documents and it was re-fortified by the Order during the Thirteen Years War.

The specific location of Zantir has been a perennial puzzle for historians and archaeologists (Powierski, 1968) and, since the mid-1940s, the most likely site has been attributed to a place on the banks of the old River Nogat (subsequently diverted westwards in the early modern period), just north of Biała Góra (formerly the village of Weissenburg), 10km south of the castle at Marienburg (Czaplewski, 1946). Excavations to the north of the village in 2007, 2008 and 2011 revealed a cultural layer punctuated with multiple pits containing a significant quantity of ceramics, metalwork, animal bone, caches of gothic brick and Teutonic Order bracteates (Figure 3.7). In 2011, wall bricks and roof tiles were recovered in the north-western corner of the site, piled up in an orderly fashion. Some artefacts, including ship rivets and a bone comb, could be dated to the thirteenth century, and this has been tentatively linked to the occupation of the site by Pomeranians and German colonists under the administration of the Teutonic Order (Sawicki, pers. comm.). The site appears to have been used intensively and then largely abandoned, although activity continued into the fifteenth century and the area was later used as a rubbish dump. The site is



FIGURE 3.7 The oldest known Teutonic Order coins of the so-called ‘Arm and Banner type’ and dated to 1236/1237–c.1247/1248 (a). Eagles and crosses dominated coin decoration from the late-fourteenth century. The ‘Third Greek Cross type’ (b), from a hoard in Podwiesiek, was dated to 1416–1460, whilst this example of the ‘Second Eagle type’ (c), dated to 1460–1467, was found within a hoard during excavations at Puck (Putzig) castle (aft. Paszkiewicz, 2007, pp. 172, fig. 1; p. 181, figs. 18–19)

situated on a spur overlooking the course of the old River Nogat, representing a suitably defensive position, typical of the site chosen by the Order during its northwards drive through western Prussia. With the excavation programme encompassing geophysical techniques alongside environmental archaeological applications, it is likely this site will provide much information in years to come about the establishment and development of a colonising site during the crusading period.

Marienburg began to be built from the 1270s (Powierski, 1979; Józwiak & Trupinda, 2007); however, very little is known of its early phase aside from a limited number of architectural elements in the high castle. Cores taken from the courtyard have revealed at least two potential phases of levelling with sand but, in the absence of suitable material, no radiocarbon dates have been obtained. As a result, the question as to whether the castle was built on the location of an earlier stronghold remains open. Scattered finds of early-medieval ceramics in the vicinity of the castle may suggest the presence of a pre-Crusade community, and future excavations may shed light on this crucial early phase when the Order secured the River Nogat in the final years of the Prussian Crusade. The development of the Marienburg castle complex is discussed in more detail in chapter 4.

Elbing (Elbląg)

The timber fortress at Elbing was most likely constructed by the winter of 1237 in the place later referred to as *Herrenpfel*, surrounded by the River Elbing, although it has not been archaeologically identified (Długokęcki, 1992, pp. 137, 167). The following year, the nearby settlement defined as a *civitas* sees the construction of a Dominican friary (Domagała, 2004, p. 89). There has been some debate as to whether there was any continuity between the thirteenth-century planned town and the early-medieval emporium at Truso (see also chapter 2), but there is no evidence for twelfth-century occupation at either site (Jagodziński, 2004a). In 1239/1240, the Teutonic Order started to build the castle from stone and brick in place of the earlier timber fortress. There were also plans to build an impressive church, fitting for the planned residence of the Master. The church was built in the Romanesque style on stone columns, and dedicated to St Andrew. In 1232, the Holy Roman Emperor had presented Hermann of Salza with a relic of the true cross, which was then subsequently deposited at the Order's church (Józefczyk, 1995, p. 36). The following year, Pope Gregory granted a ten days' indulgence to crusaders who honoured the relic of the Holy Cross held in the Order's fortress at Elbing, echoing the importance of the True Cross in the religious and military life of the Kingdom of Jerusalem (Fonnesberg-Schmidt, 2007, pp. 195–6). Excavations of the castle in 1914 and 1919 uncovered various architectural fragments, including part of a portal decoration showing the foolish and wise virgins. This may have inspired the portal in Marienburg, and is likely to have

been earlier. Elbing functioned as the main base for launching crusades into Warmia, and also as the political centre of the Teutonic Order in Prussia from 1251–1309 (Jóźwiak, 2001a, p. 417), but its mercantile community also developed its own civic identity within a few decades.

The town acquired the Lübeck Law, probably in 1240 (this was grudgingly confirmed by the Order in 1246), with its rights listed in 82 articles; this number had virtually doubled by 1275 and, by 1295, there were 256 articles listed in the town's codex (Domagała, 2004, p. 92). Archaeologically, the early phase of the town is well known from the mid-thirteenth century. A central area developed around St Nicholas' Church, where stalls were located in the mid-thirteenth century and a significant quantity of leather shoe fragments and off-cuts have been recovered, possibly represented a site of production. The majority of early town houses were timber-framed with clay or brick walls, although stone foundations of four residential towers were also discovered during excavations in Kowalska 12, Rybacka 34, Sw. Ducja 4 and Bednarska 22. These dated to the 1260s and 1280s and, complementing the appearance of imported luxuries, such as wine jugs from Saintogne in France in 1270, they represented the wealthiest inhabitants of the early town and reflect the rapid development of social stratification (Nawrońska, 2008, p. 512). This also reflects how quickly Elbing developed into a trading centre. The town seal from 1242 – the oldest known Hanseatic seal – depicts a seagoing ship and most trade connections were linked to the Baltic, although the town was also situated on the overland route from Lübeck through to Königsberg. By 1293, Elbing was trading with England (Nawrońska, 1999, p. 373). The town's hinterland also rapidly developed along with the provisioning of plant and animal products (see also chapter 7). The early, largely timber town would be destroyed by fire in 1288, only to be rebuilt with a slightly different layout (see also chapter 5).

The process of colonising Pomesania began with the commandery centres of the Teutonic Order but, by the late-thirteenth century, other prospectors were being encouraged to invest in the newly conquered territories. One example is situated in the vicinity of Prabuty, near the village of Stążki, where excavations in the nineteenth century and later by Antoni Pawłowski in the 1980s focused on the stronghold of 'Góra Zamkowa'. This site has been associated with the Knight Dietrich of Stange who acquired it from the Pomesanian Chapter in 1285, and constructed his residence within the remnants of the earlier Prussian stronghold. The site was situated on a headland protected by a moat and accessed via a wooden bridge leading to a timber gatehouse in the form of a tower. Within was a residential building with its lower levels constructed from stone, as well as structures identified as stables, sunken featured buildings, a well and a cellar dating to the fourteenth century. The stronghold was eventually destroyed in the seventeenth century. Alongside participation in the Order's military campaigns, the activities of knights such as Dietrich contributed towards the security and stability of the Teutonic Order's developing state.

Eastern Prussia: conquering the forests and lakelands

After the conquest of Pomesania and Pogesania, and the establishment of the first timber-built town at Elbing, crusading armies launched their attacks against Warmia. The cessation of hostilities with Duke Sventopelk of Pomerania in 1248, and the agreement of a new border running down the centre of the Vistula, enabled the Teutonic Order to focus their attention on eastern Prussia (Dygo, 2008b, pp. 71–72). Pollen studies, as well as the *Chronicle* of Peter of Dusburg, indicate the tribal regions of eastern Prussia, with the possible exception of the Sambian Peninsula, were covered in large tracts of woodland, interspersed with marshes, bogs and lakes, and virtual ‘islands’ of settlement and human activity (see also chapter 7). The progress of the crusades, from Warmia through to Sambia, was relatively swift in this region and a number of major bases were established by the Order. However, the development of stable political organisation and the process of colonisation were very protracted. There are very few thirteenth-century sites associated with the presence of the Order in eastern Prussia. Instead, the archaeology of this region attests to the widespread abandonment and occasional continuation of tribal sites, and the establishment of the earliest commandery centre at Königsberg.

The end of tribal Warmia and Natangia

Warmia (German Ermland) was relatively densely settled in the thirteenth century (see also chapter 2). The most important political centre situated within the area of Warmian settlement, but within the defined territory of Natangia, was at Balga. The Order occupied the earlier Prussian stronghold and constructed their own fortification in 1239, which came under regular attack from various tribal armies (*ibid.*, p. 67). Warmia itself saw the abandonment of many strongholds and the construction of fortifications in Braunsberg (Braniewo) and Heilsberg (Lidzbark Warmiński). The latter, which would develop into an impressive brick castle from the mid-fourteenth century, was initially a timber and earth structure constructed by the Order and handed over to the Ermland bishop in 1251. Virtually nothing is known about its thirteenth-century form. In Braniewo, the Prussian stronghold overlooking the River Pasłęka had been destroyed in 1240 and its site was subsequently occupied by the Order. This has not been verified archaeologically but, three years later, the castle was acquired by the first Bishop of Ermland along with a significant part of Warmian territory. After recovering from the havoc of a Prussian incursion in 1261, the earlier settlement was relocated along with the castle which began to be built as a quadrangular brick structure from the 1270s (Hafka, 1999, pp. 48–49; see also chapter 6).

In Barta, the castle at Reszel (Rößel) was built on the site of an early-medieval settlement, fortified by an embankment which was excavated. The Order built a guard tower at Równina Górna on the River Guber. In Natangia,

excavations at the large stronghold in Dubrowka (b. Pilzen) revealed it had been destroyed and rebuilt several times, with several layers of stones and burnt timber, as well as reinforced structures. This has been identified with the stronghold used by Henry Monte, which was conquered in 1271 by Deitrich of Meißen. Nearby, the trade centre at Gerkin associated by German archaeologists and historians with the vicinity of the village of Görken, was also destroyed at the end of the Great Prussian Uprising (Hoffman, 1999, p. 8). The remains of the castle at Slavskoye (Kreuzburg) are thought to have been built on an earlier Natangian stronghold, but this has not been verified archaeologically. It is clear that the thirteenth-century structures of Warmia, Natangia and Barta are poorly known from an archaeological perspective.

Sambia and the East Prussian commanderies

The conquest of Sambia by the Teutonic Order was envisaged by Jerzy Antoniewicz (1955, p. 249) as a calculated attack on successful Sambian trade centres in order to fragment the political structure of the indigenous wealthy elite, who were competing with mercantile towns such as Lübeck. Sambia certainly represented an important centre of regional power in Prussia and for crusading armies it was the gateway to southern Curonia, Samogitia and Lithuania. Between 1242 and 1255, the Order's armies approached the peninsula from the south-west through the Vistula Lagoon and proceeded eastwards, establishing an important base at the trading complex of Tuwangste situated on the mouth of the River Pregel. This probably resulted in the destruction of the Prussian settlement and stronghold; in 1890, works in the north-west area of the Order's later castle uncovered a pre-Crusade layer which was 1.2m in thickness and packed with charcoal (Kulakov, 1999, p. 160). The form of the early castle – documented several years later as Königsberg – is unknown and, in 1257, a quantity of locally gathered stone was brought to the fortification to build the walls of what may have been a single rectangular building. This was later extended and situated within a quadrangular precinct (Lahrs, 1930, p. 24). The following year a settlement was established north of the castle and, by 1286, the Old Town had been established to the south. In between Balga and Königsberg, the castle at Brandenburg (Ushakovo) was built in 1266, supposedly on the site of a Prussian stronghold (although this has not been confirmed archaeologically). The site was named after Otto, the Margrave of Brandenburg, who was obliged to fund the building of the convent in more durable material. The construction of the brick castle can be dated by fragments of vaulting from the church to c.1280. Excavations in 1887 uncovered wall foundations and cellars, and loose architectural fragments were brought back to Marienburg by Conrad Steinbrecht (Pospieszny, 2010b).

According to Peter of Dusburg, the Sambian uprising ended in 1277 at the battle of Pubetin (Pobethen). Whilst the regional elite were subdued, much of the Sambian population survived; at the start of the fifteenth century, Prussians

accounted for around two-thirds of the population in this region (Powierski, 2003, p. 153). A document of 1430 refers to the presence of nine Prussians in the vicinity of Pobethen, and the family name of one of these – Suppliethen (Sapolyten; Supplieth) – would remain popular into the early-twentieth century (Hoffman, 1999, p. 10). Moreover, the continuation of pre-Christian rites is evident in Sambian cemeteries such as Alt Wehlau, located in the south-east (see also chapter 7). Despite this, the transitional phase of early- to late-medieval Sambia remains poorly understood from an archaeological perspective. Earlier excavations have suggested that some strongholds can be dated to the Teutonic Order's occupation; in some cases there is some evidence of overlapping chronology (Wendt, 2011). These have yet to be investigated with more thorough, systematic excavation, although the ongoing collaboration between Russian and German archaeologists promises to shed vital light on this issue in the future.

To the north-east, in Scalovia and Nadruvia, there is evidence for depopulation during the thirteenth century. From the early-twentieth century, it was speculated that the belt of wilderness stretched down to eastern Sambia, although the survival of Balt place names suggests this region was not completely depopulated and would subsequently see both German and Lithuanian colonisation. The north-eastern extent of the Teutonic Order's territory stretched to the River Nemunas, which remained a volatile zone throughout the fourteenth century. The Order sought to secure this border with a series of strongholds, the most important of which was Ragnit (Neman) replacing the earlier Scalovian centre (Powierski, 2003, p. 157). The preliminary fortification was replaced by a larger brick and stone castle towards the end of the fourteenth century. Memel (Klaipėda), founded in 1252, would become the base for attacks into Samogitia and future archaeological investigations will shed more light on the early phase of this colonising frontier settlement and its hinterland. On the Lithuanian side of the Nemunas, there are remnants of hillforts, some of which were destroyed in the thirteenth century (Figure 3.8). The site of Rambynas, documented as being conquered by the Order in 1276, was badly eroded during the nineteenth century; the thirteenth-century hillfort at Jurbarkas with 17–20m-high slopes was documented as being destroyed in 1291. The hillfort at Šereiklaukis (site 1) has been dated to the thirteenth century and further east Raudonėnai, as well as Pašiliai on the Dubysa, were occupied until the mid-thirteenth century. To the south, the stronghold at Paveisininkai on the bank of Lake Veisiejis was abandoned in the thirteenth century; the same is true of the hillforts in the Klaipėda region such as Akmeniškiai, Šiūpariai, Žakainiai and Žvaginiai, and within the vicinity of the Order's commandery centre at Memel the multi-period Curonian strongholds at Laistai and Eketė were occupied into the mid-thirteenth century. Archaeologically, their final phases are relatively poorly known but, taken as a group, the collapse of these local political centres is testimony to the impact of the Order's crusades against western Lithuania at the end of the thirteenth century (Zabiela, 1995).



(a)



(b)



(c)

FIGURE 3.8 Monuments of the medieval Prussian–Lithuanian frontier. The hillfort at Jurbarkas (Bišpilis), western Lithuania (a), destroyed at the end of the thirteenth century; the remains of the Teutonic Order's fourteenth-century *castrum* at Kalnėnai (Bišpiliukai, identified as Georgenburg) just south of Jurbarkas (b); and further east the hillfort at Seredžius (site 1; identified as Pieštės), which remained an active border stronghold on the Nemunas throughout the fourteenth century (c) (G. Zabiela)

Central Prussia: from Lubavia to Galindia

Lubavia, situated in-between the Kulmerland and Sasna, was part of the Slavic–Prussian borderland in the twelfth century. To the north, Prussian settlements were concentrated above the Lubavian upland but, in the first half of the thirteenth century, the area around Lubawa and Nowe Miasto was occupied by the Sasnians and raiding continued into the 1260s. Lubavia and Sasna had been targeted by missionary activity in the years before the crusades (see also chapter 2) and Polish military reprisals continued into the 1220s. Once pacified, the territory would be split between the Kulmerland bishops and the Teutonic Order. From an archaeological perspective some strongholds related to the Masovian period of expansion cease to function before or during the thirteenth century, but a few have been dated to the crusading or post-crusading period. Dendrochronological dating suggests the stronghold at Nowy Dwór functioned until at least 1252 and the stronghold at Trzcina has material from both the twelfth and thirteenth centuries and the late-medieval period (Grażawski, 2009). Peter of Dusburg does not mention any battles with the Sasnians, perhaps implying these were sparsely populated areas with limited significance to the Order in the thirteenth century. The region began to see re-colonisation from the start of the fourteenth century; the stronghold at Lidzbark Welski was occupied from the end of the thirteenth century/start of the fourteenth century, perhaps by colonists ahead of the Teutonic Order's foundation of the town (*ibid.*, p. 195).

A similar situation appears to have existed in neighbouring Galindia, where there is tentative evidence for the survival of Prussian communities and the continuation of pre-Christian practices. One of the best-known examples is the settlement complex in Równina Dolna and Równina Górna (Figure 3.9). This consisted of a cemetery and stronghold in use in the thirteenth and fourteenth centuries by the Prussian population, as well as by the Teutonic Order. Inhumation was practised, although the extent to which this was forced by the Order is unclear, and people continued to be buried with elaborate sets of grave goods. The transitional nature of the site is suggested by the presence of lead crosses, amulets with bear teeth set in bronze fittings and necklaces incorporating the Order's coins with the inscription 'Ave Maria' (Odoj, 1956). The Święta Góra/Staświny site has already been mentioned but represents a rare example of some form of continuity or transitional community at an earlier tribal centre. On the Bartian–Galindian border, excavations at the stronghold at Beżławki indicated the site was abandoned in the Early Medieval Period only to be reoccupied from c.1360, most likely as part of the complex associated with the Order's brick castle of Bäslack, situated 600m to the north-west (Nowakiewicz & Rzeszotarska-Nowakiewicz, 2001, p. 140; Nowakiewicz & Rudnicki, 2002). Compared to the Kulmerland and Sambia, crusading-era sites in Central Prussia are limited and the process of colonisation does not really begin here until the fourteenth century.

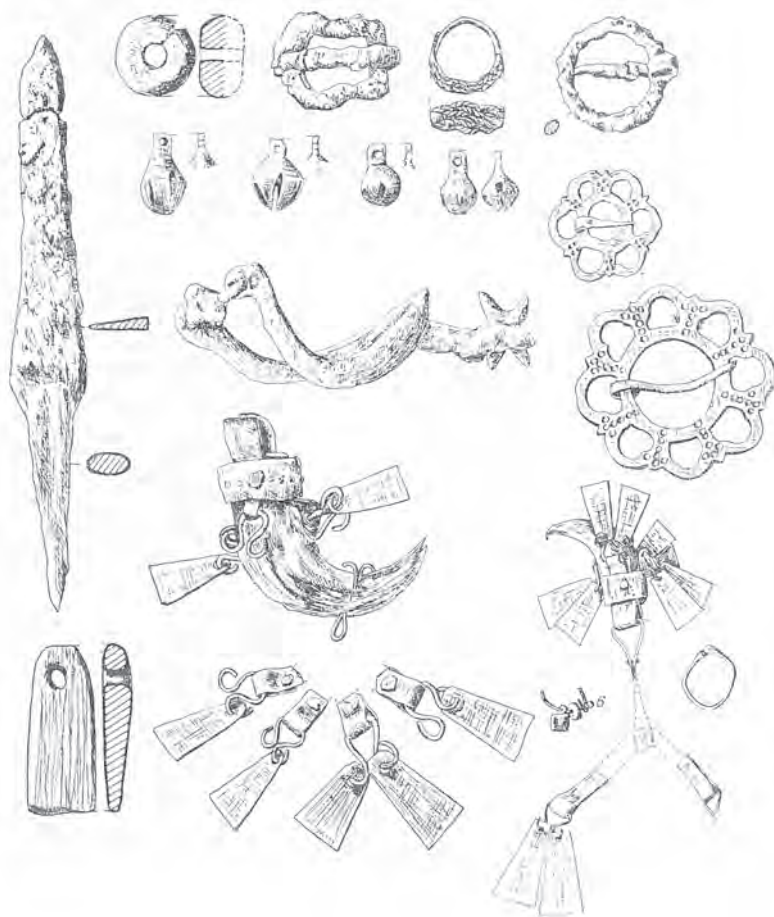


FIGURE 3.9 Artefacts recovered from Prussian graves in Równina Dolna (thirteenth to fourteenth century), including brooches, bells and bear claws pendants, Warmian-Masurian voivodeship (aft. Odoj, 1958, plates 15, 24)

Sudovia

Within the eastern borderland of the conquered territories, Sudovia contains virtually no sites associated with the Teutonic Order's presence in the thirteenth century, military or otherwise. The great tribal stronghold at Jegliniec, not far from the modern Polish–Lithuanian border, may well have been destroyed by a Ruthenian army at some point in the twelfth century on the basis of recovered arrowheads, although the excavated area remains comparatively small (see also chapter 2). There has been some discussion as to whether the crusades against the Prussian tribes even included the Sudovians, with suggestions on the basis

of sites such as Jegliniec that this group was broken up earlier by neighbouring Slavs, i.e. Masovians and Rus' (Bojtár, 1999, p. 154). The last Sudovian leader, Skurda, is documented as fleeing to Lithuania with his followers in 1283, whilst larger groups were deported by the Order to north-western Sambia (*Sudaischer Winkel*). The invisibility of settlement could be a product of the limited accessibility to archaeological data; part of Sudovia lies in the densely wooded region of the Augustów Forest, which has prevented detailed archaeological investigations. Settlement appears to be small scale and dispersed, and the few ceramic fragments that have been recovered have yet to be properly typologised and dated (Ejdulis, 2006). The pollen studies that have been done here indicate very little human activity until the post-medieval period, supporting the notion of a depopulated wilderness (see also chapter 7). To the south, the definition of the frontier with Masovia in both the Early and Late Medieval Period remains unclear; the first written account is from 1325 indicating that ducal dominion extended to the Biebrza springs. Unfortunately, the archaeology of the region is poorly disseminated, and so our understanding of settlement in the thirteenth century remains limited (Kowalczyk-Heyman, 2006a).

Most of the strongholds in Sudovia were abandoned during or before the thirteenth century; only a small number may have been adopted by the Order for use as fortifications or sentry towers (Łapo, 1998, p. 204). Jerzy Wisniewski (1961) had argued that Sudovian place names for former settlements were passed down by ducal foresters, whilst names of rivers and lakes were preserved in Lithuanian, Slavic and German documents, rather than by indigenous survivors. However, even in this central part of the 'Great Wilderness', ceramics recovered from sites in Posejnele and Pólkoty (Sejny district, Podlaskie voivodeship) hint at the survival of sporadic Sudovian communities into the Late Medieval Period (Engel *et al.*, 2006, p. 202). Future archaeological research is unlikely to change this general impression of the collapse of eastern Prussian society. However, it may shed more light on how surviving settlements were able to endure in such apparent and dangerous isolation in the depths of the 'Great Wilderness'. Although Prussia had been subdued by the last decade of the thirteenth century, the Teutonic Order's ongoing war with Lithuania saw military engagements on the Sudovian–Masovian border. The marriage of the Masovian Duke Bolesław II to the daughter of the Lithuanian Grand Duke Treniota resulted in the strategically located frontier stronghold of Wizna being used as a base for Lithuanian raids into the Order's territory. In 1294, the Order's army attacked and destroyed the stronghold, which was almost immediately rebuilt; from an archaeological perspective the last occupation phase at the site is dated to the thirteenth century. The political situation was reversed by the early years of the fourteenth century and the Lithuanians began to raid Masovia (Kamiński, 1961).

The last decade of the thirteenth century saw enough stability within the Order's conquered territories for key urban centres to develop, reflected in the appearance of specialist workshops producing commodities such as glass and

brick, alongside the participation of the Order's primary urban colonies within international trade (see also chapter 5). The defining point in the consolidation of the Order's state was the annexation of Gdańsk and its neighbouring territories in 1309, which also coincided with the relocation of the headquarters of the Teutonic Knights to Marienburg.

Conclusion: the character of conquest and colonisation in thirteenth-century Prussia

The primary source of the Teutonic Order's military conquest of Prussia is Peter of Dusburg's *Chronicle*, but the archaeology of the thirteenth century in this region remains problematic. The events of the crusades took place over five decades with numerous examples of fortifications and settlements being destroyed and rebuilt, with battles, raids, sieges and massacres on both sides. There has been a regular tendency to synchronise the archaeology with this documented account. In this respect, the archaeology of thirteenth-century Prussia has, until relatively recently, retained a cultural–historical approach to material culture. As demonstrated by the examples above, the level of resolution in the archaeological record is extremely variable. The conservative character of indigenous Prussian material culture, which clearly continues to be used into the thirteenth century, only enables low-resolution relative chronologies to be constructed. In many cases, thirteenth-century contexts have been significantly truncated or obliterated by subsequent phases of rebuilding of castles and towns. In other instances, date ranges for contexts encompass both the thirteenth and fourteenth centuries. There are no reported battlefield assemblages from this period, and only sporadic skeletal fragments and cross-bow bolts have been found on some stronghold sites, which may or may not be connected with their destruction. Interesting exceptions include examples from Livonia, such as the case of Viljandi (Fellin; south-central Estonia) where the incremental progress of the Sword Brothers' siege against the Estonian stronghold has left significant archaeological traces (Haak, 2003; Lang & Valk, 2011) (Figure 3.10). What is clear is that occupation at the majority of strongholds – with few exceptions – ends before or in the thirteenth century; some may have had fallen to earlier Slavic military ventures. But irrespective of the impact of these early incursions of which our knowledge is extremely limited, the Teutonic Order had completely reconfigured the political landscape by the end of the thirteenth century.

With the appearance of documentary sources charting the foundations and re-foundations of settlements alongside a detailed dendrochronology of timber structures from the earliest phases of the Order's towns, it is possible to scrutinise the first wave of colonisation at a much higher resolution than the final phase of Prussian settlement. What is immediately striking is the speed at which the major towns developed in the middle decades of the thirteenth century (for detailed case studies see also chapter 5), despite the instability of the crusading period,



FIGURE 3.10 The conserved ruins of the high castle in Viljandi (Fellin), Estonia

and they attest to constant investments in security, resources as well as access to provisioning and commercial networks which enabled them to function effectively. Indeed, the early development of these towns can most probably be linked to the crusading process itself; i.e. the requirements of building and maintaining the Order's early castles, of provisioning crusading armies which passed through these centres and ultimately developing internal and external trade with the growth of the urban population. The wealth of urban communities that is expressed in the construction of churches and walls from the latter decades of the thirteenth century was invariably generated through the war economy operating in Prussia at this time. Involvement in the Hanseatic League can, on one level, also be linked to this for the military campaigns and provisioning requirements of crusading armies, not only the Teutonic Order, stimulated commerce across the thirteenth-century Baltic region in much the same way as the Italian maritime republics prospered with the establishment of a permanent theatre of war in the Holy Land from the end of the eleventh century.

Before the 1280s there is no evidence of a systematic building programme associated with the Order, which focused its efforts on a series of strategic fortifications; indeed the Knights do not appear to have sponsored or directed the development of towns or the construction of churches and monasteries (Mroczko, 1974, p. 298). The irregular shape of the early castles is a defining feature of the Order's structures in the middle decades of the thirteenth century, constructed in strategic places with the aim of providing secure military bases. The regular, quadrangular plan would develop from these only later (see also

chapter 4). Unfortunately, these early castles remain largely unknown or at best only known in fragments, and so it is difficult to compare their spatial arrangement with the better-known fourteenth-century structures. The Order's castles for much of the thirteenth century provided a means of securing the military conquest of Prussia, after which they took on more diverse roles. This varied across the Order's state and from castle to castle. In the Kulmerland, the castles and economy of the Teutonic Order reflected the unstable political and military situation until 1275 (Poliński, 2005). The development of a settlement policy, including the construction of suitable defensive structures, as well as economic change in the later decades of the thirteenth century, enabled more investment.

Changes from timber to more durable materials in Prussia mirrored a similar situation in Hungary after 1242, when an intensive programme of building castles from stone can be seen as a response to the catastrophic impact of the Mongol invasion (Laszlovszky & Soós, 2001, p. 328). What is interesting is that the Teutonic Order constructed stone castles in Transylvania which, at the time, were effectively a royal monopoly in Hungary, whilst in Prussia the earliest fortifications were built from timber and earth, with stone and brick only gradually being introduced from the mid-thirteenth century. The lack of suitable stone and the role of the monastic orders in sponsoring brick buildings also contributed to this regionally specific trend. Changes in castle function reflected the development of a stable core in the Teutonic Order's state and increasing organisational complexity. The Teutonic Order's administration evolved quickly after 1230, with the first commander documented in Elbing in 1246 and then in the Kulmerland. The system was developed by the acting Master Eberhard of Sayn, who made Elbing the head convent and provincial capital, with Balga and Christburg as the most important seats of commanders in Prussia. New administrative districts were created with the expansion of the Order's territories (Jóźwiak, 2001a). By the end of the thirteenth century, the offices of voigt (or *Fokt* or 'advocate') and procurators are evident; the former arose to meet the legal challenges of running the new state and the procurator was introduced to support commanders with the organisation of smaller territorial units. These administrative structures crystallised in 1309 and are directly reflected in the design and development of the Teutonic Order's castles (see also chapter 4). Investment within the lower Vistula and Baltic coastal zone would not develop until the fourteenth century, and the small number of castles in the easternmost regions of Prussia reflected the unstable nature of the frontier with Lithuania (Arszyński, 1995). In Memel, this peripheral situation would continue to affect the development of the castle and town into the fifteenth century.

Colonisation, ethnicity and Ostsiedlung

Historical understandings and discussions of *Ostsiedlung* have, until quite recently, been coloured by nationalist agendas. Archaeologists have also been

aware of the problems of associating early-medieval material culture with ethnicity (Curta, 2007). However, archaeologists working on southern Baltic sites from western Pomerania through to Sambia have not shied away from defining Slavic, Prussian and German groups through their material culture. The early-medieval Slavic–Prussian frontier is very much defined by the distinction between Slavic and Prussian sites, identified by contrasting ceramic traditions and forming distinct cultural zones (see also chapter 2). The spirit of the 2004 *Terra Pacifica* exhibition and its supporting research promoted a view of multi-cultural interaction between Slavs, Prussians and Scandinavians, whilst demonstrating regional segregation in the settlement pattern of the Vistula fenlands. This was contrasted with the ‘interactions’ associated with the Teutonic Order’s crusades (Trupinda, 2004a). To the west, distinctions are evident in material culture between the Rhine and Elbe, and between the Elbe and Vistula (Wünsch, 2008, p. 32). In the light of recent decades of scholarship on the medieval Christian ideology of holy war, it is possible – and desirable – to replace ahistorical understandings of *Ostsiedlung* as an ethnic agenda of colonisation with a process of religious conversion aligned with local political and commercial expansion. With the development of regional models of early-medieval colonisation across the southern Baltic, central and eastern Europe, it is increasingly possible for inter-regional projects to compare and contrast cultural encounters between German, Slavic and Baltic groups. This approach was adopted by the Culture Clash or Compromise (CCC) project, which produced a series of publications with a multi-disciplinary approach situating these encounters within a broader European context.

The archaeology of thirteenth-century Prussia reinforces our understanding of the Crusade as resulting in a cultural event horizon and enables us to scrutinise the Teutonic Order’s decision-making processes in developing fortifications and settlements from another angle. The process of Christianisation is poorly represented in the archaeology of the thirteenth century, although the crusading ideology of the Teutonic Order is perhaps best represented on its early coinage and the development of the conventual castle – effectively a fortified monastery (see also chapter 4). It is this ideology and the role of the central European crusading movement that provides an essential context to the process of colonisation. The military conquest of Prussia was a continuation of earlier holy wars which had eventually become sanctioned by the papacy as legitimate crusades, as penitential wars. In 1217, participants in Bishop Christian’s expeditions received crusading indulgences (Starnawska, 2001, p. 419), and the relic of the True Cross was carried into battle against the pagan Prussians, paralleling its deployment in the Holy Land. It may even have inspired the adoption of the cross as the institutional emblem of the Order in the Baltic (Paszkievicz, 2009, p. 70). The early organisation of the Christian state in Prussia was directly linked to the crusading infrastructure and the security of the occupied region was maintained exclusively by the Teutonic Order. This is not a way of replacing discourse on ethnicity with religiosity, but a

means of continuing to rehabilitate the idea of *Ostsiedlung* within our understanding of medieval European society. Ethnicity remains a central topic for the archaeological identification of old, abandoned centres and the establishment of new colonies. Our understanding of this process can also be detached from unhelpful comparisons with modern colonialism (Ekdahl, 2004, p. 10) which have prompted interpretations of medieval Prussian art and architecture as *Kolonialkunst* (see also chapter 1). Whilst this definition of the Baltic crusader states has been the subject of lively debate (Biskup, 2002a, p. 133; Blomkvist, 2005), the term is generally avoided in the archaeological literature where cultural trends in both the Early (i.e. Slavic) and Late Medieval Periods are framed in the context of 'colonisation'.

Instead, archaeologists across the eastern Baltic often describe the cultural changes in ethnic terms – German or Germanic, Slavic, Prussian or Baltic – although today this is disconnected from earlier notions of ethnic agendas driving the replacement of one culture with another. Yet the ethnic nuances of medieval Prussia continue to elude archaeologists, particularly with regard to the surviving indigenous population. The Prussian Crusade is often thought of as a war of annihilation and, whilst the deliberate destruction of settlements, people – men, women and children – and the translocation of communities punctuates Peter of Dusburg's narrative, there were also those who converted and benefited from their shift in allegiance. The son of the executed Prussian leader Pepin became a trusted and important figure in Christian Prussia and, during the tribal insurrections, the Prussian nobility who had pledged their allegiance to the Order were the first to be targeted (Urban, 2000, p. 117). By the end of the thirteenth century, the surviving Prussian aristocracy which had not participated in the uprisings had been incorporated into the Order's state structure. Furthermore, a significant part of the Prussian population survived as suggested by, amongst other things, the documented settlements organised under 'Prussian Law', not to mention the persistence of pre-Christian practices. Comparatively few colonists settled in Samland where Prussian identity survived the longest (*ibid.*, p. 364). The gradual disappearance of the language along with a pre-Christian Baltic identity was not due to extermination but over two centuries of assimilation or 'Germanisation' (Ekdahl, 2004, p. 7) and, in the eastern borderlands, 'Lithuanianisation'. Detecting the material traces of this gradual assimilation, the survival of indigenous practices and any cultural hybridity awaits the attention of archaeologists.

A few years after the subjugation of Prussia, cataclysmic events in the Mediterranean ensured the Order would focus its efforts on sustaining its crusades against pagans and schismatics in the eastern Baltic for virtually the entirety of the next century. In 1291, the fall of Acre, the last Christian outpost in the Holy Land, brought an end to Outremer and called both the effectiveness and purpose of the military orders into question. The Teutonic Order's state in Prussia has often been described as an aristocratic corporation revelling in its newly acquired landed power, removed from earlier crusading ideals.

The next chapter investigates the extent to which material culture supports this conception.

Notes

- 1 For the sake of clarity and following Poliński (2003), the term stronghold and fortification refers to the *castra* or *grody* associated with the Teutonic Order in thirteenth-century Prussia, whilst castle or *zamek* is used to describe later structures built from brick and stone; the question of terminology is discussed in more detail within the main text.

4

A LAND OF RED CASTLES

Consolidating the Teutonic Order's state in the fourteenth century

When the castle was finished holy relics were carried in procession into the chapel in the castle while all the priests sang a mass to praise God.

(How the house at Christmemel was built (in 1313); Nicolaus of Jeroschin, *The Chronicle of Prussia*, III: 315; Fischer, 2010, p. 262)

By the later decades of the thirteenth century, the Teutonic Order controlled a network of castles, settlements and towns in Prussia, all of which functioned within a semi-independent, loosely structured organisation. When the headquarters of the Order moved from Venice to Marienburg (Malbork) in 1309, a centralised form of government developed and it is possible to speak of a functioning Order state or *Ordensstaat*. The Order's lands in Prussia were held as a papal fief, and, along with its territories in Livonia, they were virtually unique in medieval Europe. Nonetheless, Zenon Nowak (1999) concluded that the Order's state was very much embedded in medieval structures tied to the papacy and Holy Roman Empire, and cannot be considered a modern entity. The workings of the state are well researched, largely based on the Order's extensive archive now housed in Berlin. The most comprehensive, synthetic work to date on the development and organisation of the Order's state was recently published by Marian Biskup and his colleagues (Biskup *et al.*, 2009), drawing on over a century of German and Polish scholarship. This chapter is concerned with the structures specifically associated with the Teutonic Order in fourteenth-century Prussia and the organisation of settlement within its commanderies, whilst towns, churches, monasteries and resource exploitation are examined separately. The historical events forming the backdrop to the development of the Order's state can be sub-divided into two periods. The first half of the fourteenth century saw the annexation of Pomerania, the relocation of the Order's headquarters to Prussia and the ensuing war with Poland. The latter half of the fourteenth century was very much a 'golden age' with increased political stability following the Treaty of Kalisz in 1343, where the Polish Crown renounced its claims to the Kulmerland and Pomerania in exchange for Kuyavia and the Dobrin Land. Imperial support for the legitimacy of the Order's state would be

reiterated in 1356 in Charles IV's Golden Bull. Although the Teutonic Knights' claims to these disputed lands were not recognised by the Polish Crown, the southern frontier remained more or less stable until 1409 and enabled the Order to focus on organising crusades for the European knighthood against Lithuania, as well as promoting international trade, colonisation and resource exploitation (Samsonowicz, 1994, p. 138). The 1360s–1380s saw the most intensive military campaigns against Lithuania, although the grand duke's acceptance of Christianity in 1385 and political union with Poland initiated an ideological crisis within the Order and challenged its very purpose.

The archaeology of the Teutonic Order in Prussia can be broadly subdivided into two types: first, the more traditional approach to architectural elements concerned with reconstructing building phases of individual sites and, second, the landscape approach which aims to map the changing settlement pattern and how this can be related to the hierarchy of castles, strongholds and manors. These are essential foundations for understanding the political, economic and cultural integrity of the Order's state, and it is possible to build on them and explore the extent to which the Teutonic Knights as a military order maintained their crusading ideology – which defined them as an institution – into the fourteenth century. Accepting the concept of an archaeology of the military orders brings us closer to situating the material culture of the Teutonic Knights within a more nuanced historical context (Boas, 2006). The military orders were neither secular aristocrats nor communities of monks. They did not sit comfortably in the model of the 'three orders' of medieval society and this is evident in the archaeology of their sites which accommodated the paradox of contemplation and action (Gilchrist, 1995). In Prussia (and also in Livonia), the Order created something which contained familiar elements from the secular and religious spheres of elite medieval society in central Europe but, as in the Holy Land, developed its own distinct identity.

Overview of structure and organisation

The administrative structure of the Teutonic Order's state has been extensively researched (Jóźwiak, 2001a; for the latest synthesis see Biskup *et al.*, 2009). From its very onset, it was conceived as a theocracy (Tandecki, 2005, p. 43), combined with emulating the concept of *Landesherrschaft* developed in the Holy Roman Empire in the thirteenth century, where power was exercised through the territorial rights of individual dukes. The presence of four bishops, interdependent rulers within Prussia, also resonated with imperial episcopal lordship or *Hochstift* (see also chapter 6). However, unlike any ruling sovereign in the Empire or elsewhere in medieval Christendom, Prussia was dominated by a military order and this gave its organisation – and the material expressions of its political identity – a distinct and virtually unique character. In the Holy Land and Iberia, the military orders were powerful landowners, but perhaps only the rule of the Knights of St John in Malta was comparable to the Teutonic Order's Prussian state. The

Order's hierarchy was headed by an elected Grand Master (*Hochmeister*) and, during the thirteenth century, the provincial Master of Prussia (*Landmeister*) until 1309, after which Marienburg became the seat of the Grand Master, the Grand Commander (*Großkomtur*) and the Treasurer (*Treßler*). The administration of Prussia was supported by the Marshal (*Marshall*) based at Königsberg (Kaliningrad), the Hospitaller (*Spittler*) based at Elbing (Elbląg) and the Quartermaster (*Trappier*) at Christburg (Dzierzgoń). These officials made up the Chapter, which governed the Order's state and elected the Grand Master. The Prussian state was then sub-divided into *Ämter*: commanderies (*Kommende*), voigtships, procuratorships (*Pflegerämter*) and, at the lowest level, *Kammerämter* (Polish *komurnictwa*) which included between 15 and 45 villages (Białuński, 1996, p. 14). There were also region-specific districts such as *Waldämter* in the case of woodland. These administrative districts were directly run by commanders (*Komtur*), advocates (or voigts; *Vogts*), procurators (or provisors; *Pfleger*), *Kämmerer* and *Waldmeisters* from their castle or manorial bases (Józwiak, 2001a, p. 223). These lesser officials served the role of judges, tax collectors and military organisers, and supervised the Order's tenants and provisioning networks. Outside of Prussia, the Teutonic Order's commanderies were organised within regional bailiwicks (*Ballei*), mostly located in the Holy Roman Empire, where resources and recruits could be gathered for crusading efforts in the Baltic.

At the centre of each commandery was a convent, run by commanders overseeing a house of brother-knights, one of whom would be a priest (Miltzer, 2005). In the Order's Rule (13) as applied in the Holy Land the size of this community is explicitly linked to the number of Christ's disciples (Sterns, 1969), although in Prussia the number varied from a handful to several tens, with changes over time (Józwiak, 2009a, p. 134). The community included officials with various responsibilities to ensure the smooth running of the convent, such as the cellarer (*Kellermeister*) and kitchener (*Küchenmeister*). They, in turn, were supported by retinues of soldiers referred to as 'grey-mantles', sergeants and half-brothers acting as both squires and men-at-arms. The military campaigns of the Order were also supported by knights (*Rittir*), who subsequently contributed to the restructuring of Prussian society from the later decades of the thirteenth century. Smaller outposts, whether watch towers or farms, were manned by small groups of brother-knights with their retinues. The Order's houses primarily consisted of men, but the Rule (31) permitted women to work in hospitals and with livestock, providing they were housed apart from the brethren. Indeed, the extended households attached to the Order's commandery centres could be quite substantial (Gancewski, 2001, p. 55).

Between 1280 and 1309, most of the Grand Masters came from Christburg or the Sambian commanderies; Elbing, Balga (Veseloe) and Christburg were the headquarters of the key officials of the Teutonic Order before 1309 (Dygo, 2008a, p. 98). The annexation of Pomerania in 1308–1309 saw the beginning of the political expansion of the Order on a level with other medieval states (Nowak, 1999, p. 81), although its character was theocratic rather than secular.

The move from Venice to Marienburg at this time prompted an overhaul of the bureaucratic structure, now more centralised as the expansion of the Order's activities and holdings eastwards were becoming increasingly expensive. The headquarters remained at Marienburg until 1457, marking the end of a long period of internal political stability. The most important economic territory in the Order's new state was the Kulmerland; at one time there were eleven commanderies and two voigtships in this province, including the Kuyavian commandery of Nessau which lasted until 1422. These administrative regions changed over time; some were very short lived and the administrative structure was in flux, usually in relation to warfare, partly as a result of the proximity to the border with Poland, and partly due to the needs of provisioning and trade (Gancewski, 2001, pp. 13–14). Indeed, the development of the commandery system was very responsive to the changing political and economic situation. In 1309, the procurator at Dirschau (Tczew) answered to the commander of Mewe (Gniew), and the possibility of a separate commandery of Dirschau was discussed into the early 1320s, after which the town and its hinterland came under the administration of a voigt. A residence was built nearby, although the location remains unknown archaeologically, and from the start of the fifteenth century the voigt was based in nearby Sobbowitz (Sobowidz) (Soćko, 2005, p. 75). The easternmost commanderies consisted of long, thin strips of territory running from the Baltic coast where the central castles were located, south-east to the Masovian border. Their elongated shape is related to the progress of the thirteenth-century crusades, which focused on the northern parts of Prussia, and the administrative districts were not fully formed until the mid-fourteenth century, after plans for additional 'forest commanderies' at Leunenburg (Sątoczno) and Instenburg (Czarniachowsk) were thwarted by Lithuanian incursions (Długokęcki, 2009b, p. 208). The surviving Prussian population was concentrated in the *Waldämter* and *Kammerämter* of these less populated commanderies (Karczewska *et al.*, 2005, p. 57). Procurators became more defined within the administrative structure of the *Ordensstaat* from the mid-fourteenth century, and a number were established in the easternmost regions of Prussia as a means of improving the Grand Master's fiscal control over the state. Their status is reflected in their elaborate residences, even though in many cases these lesser officials were running small estates.

The later emphasis on procurators underlies how the administrative structure of the Order's state became closely tied to its economic development and the management of natural resource exploitation (see also chapter 7). Manors (*Vonwerks*) could be very extensive ranging from 60 to 700 hectares, compared to a contemporary peasant holding of around 40 hectares (Czaja, 2005, p. 109). The Order took particular interest in regulating mills, which it constructed on artificial canals and redirected streams. In every convent there was an official in charge of organising fishing; fish were procured for both consumption and for sale. In the eastern commanderies woodland husbandry was of great importance and an official called the *Waldmeister* (forest master) organised the management

and provision of timber, charcoal, pitch, honey, wax and pannage. Internal and international trade had quickly developed but, in the fourteenth century, their administration became increasingly elaborate. Each convent had officials in charge of acquiring and selling wares. The brothers relied on products from local settlements and towns; artisans obtained raw materials, such as wool and hides, from the Order's estates and sold back finished products (*ibid.*, p. 110). At the level of the state, the Quartermaster's agents handled imports and exports from the smaller Prussian towns, and maintained a network connected with international trade routes (see also chapter 5). The Order's monopoly over the procurement and sale of amber – the main luxury commodity exported from Prussia – became organised under the *Bernsteinmeister* (Amber Master). This period of economic growth, which is also reflected in the levels of investment in castle building and town growth, came to an end in the early-fifteenth century when war with Poland resulted firstly in disruption of production, followed by financial and territorial loss.

Colonisation and the population of fourteenth-century Prussia

The tribal structure of indigenous Prussia was replaced by a different social hierarchy, often labelled as 'feudal' in the scholarly literature (see also chapter 2). Former aristocrats became referred to in the language of the European nobility; a part of the population was declared greater and lesser free (*grosse und kleine freie*) and a small group was able to enter the knightly class whilst the majority were defined as a serf/servile peasant class (Biskup, 2002a, p. 133). They lived in self-contained settlements, sometimes in stretches segregated from German colonies, practising old systems of farming, provisioning, maintaining their language and, as the evidence suggests, earlier religious beliefs; only from the end of the fourteenth century did the Order allow peasants from Prussian villages to relocate to settlements organised under the Kulm Law (*ibid.*, p. 136). Prussian peasants were engaged in the construction of fortifications on the eastern frontier with Lithuania and also worked as labourers on the Order's manors (Stephan, 2009, p. 318). The Prussian population in c.1400 may have numbered around 100,000 people, but there is a lack of evidence for the number of German colonists in the Prussian interior.

From the 1280s, the Order and Prussian bishops encouraged German peasants to settle their territories, bringing a more intensive tradition of farming with them (see also chapter 7). The regional trend in peasant colonisation is well documented. By the end of the thirteenth century, there were settlements along the River Osa, the Kulmerland, the Order's lands in north-western Pomesania, the lands of the Pomesanian bishops around Marienwerder (Kwidzyn) and Riesenburg (Prabuty) and the lands of the Ermland bishops and Chapter along the River Bauda. Between 1296 and 1308, 20 colonies were established on the Elbląg upland, marking the start of intensive colonisation focused on the

commanderies of Christburg. The Order and the Pomesanian Chapter organised around 20 settlements in the vicinity of Rosenberg (Susz) and Eylau (Iława), whilst episcopal initiatives saw the colonisation of central Warmia. The greater fenlands between the Vistula and the Nogat were settled between 1320 and 1350, as was the coastal zone around the Vistula Lagoon, between the Rivers Świeża and Pregolya and the commandery of Balga. In the second half of the fourteenth century, the commanderies of Brandenburg and Königsberg in the eastern part of Sambia saw colonisation amidst surviving Prussian settlements; the Sambian bishops focused on reorganising the existing Prussian population. The 'Great Wilderness' began to be colonised in two phases: from the 1320s and the 1370s, but more extensively from the fifteenth century (Długokęcki, 2009b; see below). Masuria was also populated late by German and Polish colonists, Prussians and also sporadically Lithuanian and Russian settlers, although the distribution of these groups varied regionally; Masovian colonists dominated the southern area of the Order's state (Białuński, 1996, p. 45). In the second half of the fourteenth century, the colonists were initially secular knights carving out small estates. Twenty-three settlements were founded in the procuratorship of Rhein (Ryn) and only nine around Lötzen (Giżycko) before the Thirteen Years War. This number increased in the latter half of the fifteenth century; by 1540 most of the colonists were Polish. A component of the Prussian population remained within this frontier region. In the commandery of Brandenburg, for example, 1,598 Prussian families were listed at the end of the fourteenth/start of the fifteenth century, amounting to around 8,000 people (Karczewska *et al.*, 2005, p. 55). The participation of Prussian colonists reflects the high number of toponyms containing Prussian elements; this is one of the arguments put forward for the survival of a population in Galindia (Karczewska *et al.*, 2005, p. 57). In the sixteenth century, when these toponyms stop being used, this reflects the assimilation of the surviving Prussians into the Polish and German population – one of the final stages in the disappearance of the Prussian language and culture (Białuński, 2001, p. 50).

With the annexation of Pomerania, the population of the *Ordensstaat* invariably increased. The rural population of Pomerania is difficult to estimate in the early-fourteenth century, but a rough estimate of 85,000 people for the first half of the fourteenth century has been calculated from the payments of Peter's Pence to the Holy See (Biskup, 1983). The significant proportion of the aristocratic and peasant population was Slavic – Polish and Kasubian – with a smaller group of German speakers, especially in Gdańsk. The aristocratic class maintained strong links with Slavic Pomeranian identity through language, clothing and legal, political and religious structures; the latter were linked to the Polish dioceses of Włocław and Gniezno. Nonetheless, German settlement laws were introduced: on the lands of the Order, only a fifth of peasant settlements (numbering 84) remained under Polish law; on the lands of the Church and aristocracy, the number totalled around 150. The mixed ethnicity of the Order's state was not an issue in the Middle Ages in the manner promoted by

nationalist histories. All inhabitants were regarded as ‘Prussians’ irrespective of what language they spoke (Czacharowski, 1983, p. 72). However, this debate has largely focused on distinctions between Germans and Poles. In contrast, there is evidence for active, physical segregation of Prussians alongside their incorporation within the broader Christian community represented by the Prussian Church. Whilst both indigenous Prussians and colonists were obliged to provide taxation in kind, often in the form of agricultural produce, Prussian settlements were governed by their own law with relatively unfavourable conditions which prompted individuals to move to settlements with German rights. The Order were aware of this situation, but maintained the inferior, servile role of indigenous Prussian peasants into the fifteenth century (Stephan, 2009). The process of colonisation saw earlier Prussian *lauks* handed over to colonists, where the name of the Prussian settlement was sometimes retained and simply Germanised (e.g. Wuselauk became Wuselauken, Vorelauk became Vorelauken, etc.; Okulicz-Kozaryn, 1983, p. 102), but exemplified the gradual process of cultural assimilation which would not be complete until after the disintegration of the Order’s state. This was not always the case, particularly in Sambia where many Prussian settlements were reorganised under the Kulm Law whilst retaining their original ethnic composition. In this region, Prussian identity would endure the longest. Overall, the treatment of the indigenous Prussians is characterised on one level by segregation, whilst the eventual disappearance of the language also points to gradual assimilation. This group, the descendants of the conquered indigenous population, remains largely invisible in the archaeology of late-medieval Prussia. Identifying the ethnicity of the first wave of colonists is less problematic from an archaeological perspective, as demonstrated by the provenance of the ceramic assemblages recovered from excavations in Elbląg (see previous chapter). However, most of our knowledge of the ethnic composition of the *Ordensstaat* comes from written sources.

Initially, the majority of settlers came from Lower Saxony, North Rhine-Westphalia, central Germany and Holland, whilst subsequent generations born *within* Prussia would themselves become colonists, and numbers of migrants from outside the Order’s state were comparatively limited (Długokęcki, 2009b, p. 204). The relative proportion of ethnic groups has been tentatively calculated by historians. At the start of the fourteenth century, the population around the Łeba, Vistula and Nemunas numbered around 220,000 people, of which 41 per cent was Prussian, 48 per cent Slavic and 11 per cent German, including members of the Teutonic Order. A century later, the population in the Order’s state has been estimated at 270,000 in the Prussian interior, 130,000 in Pomerania and 80,000 in the Kulmerland. The 95 towns were populated with 110,000 people – around a quarter of the total population of Prussia. The proportion of Prussians and Slavs was now around 30 per cent for both groups, except in Pomerania where the latter represented two-thirds of the population, 50 per cent in the Kulmerland and 10 per cent in the Prussian interior. The German ethnic element dominated the Order’s state with the population

calculated at 40 per cent of the total and mostly concentrated in towns and settlements in the Kulmerland and the Prussian interior, with only 20 per cent located in Pomerania. The Polish wars against the Order in the early decades of the fifteenth century had a significant impact on the rural population, resulting in migration from the southern borders of Prussia into Greater Poland and Kuyavia, Pomerania and the Kulmerland. The most extensive changes would take place in Masuria, where Masovian colonists were giving Polish names to villages and landmarks, whilst in the north-east borderlands Lithuanian migration between the lower Pregolya and Nemunas would increase after 1410 although hostilities would continue (Biskup, 2002a). Throughout the fourteenth century, the Order successfully managed and reorganised the ethnic diversity of its state and promoted its own, unified identity directly linked to recognisable expressions of authority.

Castles

The Teutonic Order's red brick castles are the most studied – and most visited – historical monuments in the former territory of Prussia (Figure 4.1). The number of studies and publications on the subject in German and Polish is so vast that even recent syntheses have struggled to summarise its historiography (see Arsyński, 1995; Torbus, 1998; Kajzer & Nowakowski, 2001). There are essentially two broad phases associated with archaeological studies of these castles. Antiquarians and early conservationists in the late-nineteenth and early-twentieth century documented all of these structures in extensive detail, and Conrad Steinbrecht's plans and reconstructions continue to be used today (see also chapters 1 and 8). During the Second World War, several castles were damaged, some extensively, and from the 1950s during the removal of debris and restoration, archaeological investigations were conducted and continue into the present day (Kochański, 2001, p. 465). However, despite over a century of intensive study, many castles remain poorly understood from an archaeological perspective, particularly on the Sambian Peninsula. Taphonomically they are complex sites, as many continued to be occupied and modified into the modern era.

The term castle is interchangeably used with *castellum* and *castrum* and, in the context of the fourteenth century, refers to fortified structures built from brick and stone, as well as timber and earth, or a combination of these.¹ In the scholarly literature the commandery centres, which housed the Order's convents, are referred to as conventual or claustral (i.e. cloistered) castles (*Konventsburgen*). The convent building housing the community of brother-knights, priests (or chaplains) and their supporting household was also referred to as a *Haus*, headed by a *Hauskomtur* (Nowak, 1999, p. 84). By the time Prussia had been militarily subdued, a standardised template for the conventual castle had been established and became replicated across the Order's state. As outlined in the previous chapter, the development of castles paralleled the unfolding of the Order's administrative structure (Gancewski, 2001, p. 16); the transition from stronghold to conventual



(a)



(b)



(c)



(d)



(e)



(f)

FIGURE 4.1 Castles from the Kulmerland to the Curonian Spit: (a) the ruin of the commandery castle or convent at Radzyń Chelmiński (Rehden); (b) the more complete procurator's castle at Nidzica (Neidenburg) (P. Siepsiak); (c) The characteristic *Dansker* tower of the largely demolished castle in Toruń (Thorn); (d–e) two views of the Teutonic Order's castle at old Königsberg (later Kaliningrad) before its demolition; exterior (d) and courtyard view showing the sixteenth-century church dominating an entire wing of the complex (e); (f) the remains of the so-called 'big gunpowder tower' at the castle in Klaipėda (Memel), constructed in the fifteenth century, demolished in the nineteenth century and revealed by excavations

castle took place during the decades of the Crusade and is discussed in more detail below. Between the mid-thirteenth and early-fifteenth centuries, over 200 fortified structures were constructed in Prussia. The majority lie in the modern Polish part of former Prussia, where 125 of the Order's castles are documented with 24 belonging to bishops and chapters; in the Kaliningrad Oblast 46 of the Order's castles are recorded, along with eight bishop's castles and three belonging to the Sambian Chapter. A dozen were constructed in the volatile Memelland and Nemunas borderland (Bieszk, 2010). The vast majority of these structures have been documented, many in the early-twentieth century by German conservators, archaeologists and historians and, since the 1950s, by Polish, Lithuanian and Russian archaeologists and architectural historians.

Castle design

The design of castles in the *Ordensstaat* reflects both their chronology and function. The earliest castles consisted of simple buildings attached to a fortified enclosure and, whilst the quadrangular red-brick structure would come to typify convent buildings, single-wing castles would continue to be built alongside timber towers. These can be broadly linked to the importance and range of administrative, military and provisioning activities at each site, corresponding to the hierarchy of the Order. Commandery castles came to be the most elaborate structures, with the centres of procuratorships and bailiwicks consisting of smaller, simpler buildings. There is not enough space to even outline the most important castles in detail, so only a few examples will be touched on and Marienburg is discussed as a separate case study below.

The conventual castle dominated the buildings works of the Order from the end of the thirteenth and in the fourteenth centuries. Castles consisted of a main complex of buildings and one or more linked outer baileys, encircled by a wall (*ibid.*, p. 25). The main castle (often referred to as the upper or high castle) formed a regular, enclosed square with a tower projecting above the height of the walls from each corner; the whole structure was encircled by a moat (Lahrs, 1930, p. 24). In the majority of cases, whole or partial elements of these conventual complexes have survived. In the case of the short-lived commandery centre at Nessau (Nieszawa), situated on the southern bank of the Vistula across from Thorn (Toruń), the conventual castle was completely dismantled in 1424. Excavations revealed a regular quadrangular complex constructed from brick on top of stone foundations, with dimensions of 35 × 35.75m. This was not completely enclosed and the north-eastern area by the main gate was integrated with the paved courtyard where a well was uncovered. The main residential part of the castle was the southern wing, which also contained cellars used for storage. The main complex was separated from its outer bailey to the north and east by a moat, linked with a single bridge (Haftka, 1999, pp. 195–196). Not all moats were filled with water, although some castles had complex moat systems that were linked to rivers or lakes. Over time these have become filled and there

is a continuing debate as to whether they contain mixed, residual material or discrete, datable contexts. Sampling and excavations in the north-eastern part of the outer bailey moat at Malbork suggested that whilst this was periodically inundated with water and flushed, a layered stratigraphy had built up which could be broadly dated from the fifteenth century to the present day (Brown, pers. comm.). Excavations through the moat at the Order's castle in Sątoczno identified three distinct phases: the artificial cut of the moat, a semi-natural accumulation which began immediately after its construction from the mid-fourteenth century, and from the fifteenth century to the present day anthropogenic deposits representing infilling and agricultural degradation (Kittel, 2003). In the case of the procurator's castle at Lauenburg (Łębork) in Pomerania, the moat cut through the centre of the site, fed from the east by a canal and joined the River Łeba after cutting through the south-eastern corner of the town. The moat was often separated from the castle building by an outer ward (*między murze*, *parcham* or *Zwinger*) between 6–10m in width. This space was used for gardens, tournaments, bear and wild boar baiting, as well for military purposes (Kochański, 2001, p. 473). The external wall of the outer ward typically reinforced the side of the moat, as evident at Gollub (Golub) and Rehden (Radzyń Chełmiński). The inner ward or courtyard was surrounded by open arcades, reminiscent of a monastic cloister, and typically contained a well; examples survive in a number of castles but this space is rarely documented archaeologically.

Where castles followed the conventual template fully, they included an integrated set of communal spaces: a dormitory, refectory, kitchen, chapter house, a chapel or church, an infirmary and a latrine or *Dansker* tower projecting over the moat (Chęć, 1997); the latter two were key features of the Order's commandery castles (Pospieszny, 1998). The castle in Danzig (Gdańsk) had its own infirmary by the mid-fourteenth century, not long after construction (Paner, 2004a, p. 327), whilst the castle at Marienburg had two infirmaries, one in the middle castle and one in the outer bailey. The former, reserved for brothers of the Order, would also serve as accommodation during meetings of the Order's general chapter, and the latter was intended for the castle household, soldiers, guests and pilgrims (Ratajczak, 2006, p. 253). This was unusual as in many conventual castles the infirmary was incorporated into the main castle complex; in Gollub within the south wing; in Roggenhausen (Rogóżno Pomorskie) next to the chapel, chapter house, kitchen and brewery. Indeed, infirmaries were often linked to chapels and if this was not possible they were furnished with altars. Convents also included scriptoria and the larger castles had additional buildings; Marienburg with its extended household had two refectories, one in the high castle and one in the middle castle, a palace for the Grand Master and a chancellery (see case study below). The most important parts of the castle were heated with stoves and/or hypocaust systems, resulting in the use of a composite structure for the floors and walls in the relevant spaces. The main castle building also included a series of service areas: kitchens, food and crockery stores, armouries, bakery as well as stores for wine, beer and

mead. The castle's stores were for regular, short-term use, whilst the main storage areas were located in the outer bailey (Gancewski, 2001, p. 51).

The number of outer baileys and their size varied between castles and depended on their function. The castle in Graudenz (Grudziądz), for example, originally strongly military in nature, saw its outer bailey reshaped in the second half of the fourteenth century to reflect the site's increased role in trade (ibid., pp. 16–17). Excavations at Starogród (Althausen Höhe) in 1969 revealed how the outer bailey was separated into two parts by a moat (Kochański, 2001, p. 465). Schlochau (Człuchów) had three outer baileys, Thorn, Schönsee (Kowalewo Pomorskie), Rehden and Engelsburg (Pokrzywno) had two (Figure 4.2), others such as Graudenz and Lochstedt (Pavlovo) only had one. These functioned as areas for storage, animal husbandry, processing of raw materials, manufacturing, as gardens and reflected the specific requirements of the castle and its commandery. Buildings were typically positioned up against the encircling wall, with the central areas free for the movement of people and animals (Gancewski, 2001, pp. 24–25). The presence of granaries within castle baileys can be related to the intensive production of grain within the Order's state for both internal consumption and export (see also chapters 5 and 7). Stables were also found in virtually every castle outer bailey. The range of activities taking place in these spaces can often be reconstructed from extant written sources – particularly *Das Große Ämterbuch* – and included everything from leatherworking through to blacksmithing, brick production and brewing, storage for products brought in from the commandery (such as grain or meat) or imported (such as salt), fodder, building materials, armour, weapons, fuel and so on. In this respect castle outer baileys and the Order's farms functioned as centres of production for local and foreign trade; for example in 1400, the Kulmerland convents were trading leather, timber, brick,



FIGURE 4.2 Plan of the castle at Pokrzywno (Engelsburg): 1: high (conventual) castle; 2: inner outer bailey; 3: secondary outer bailey; 4: fortified point overlooking the north entrance; 5: moats; 6: preserved gate into secondary outer bailey; 7 and 8: service buildings (aft. C. Steinbrecht, in Haftka, 1999)

horses, sheep, oxen, rye, wheat, honey, fish, crossbows and armour (ibid., p. 88). Excavations of outer baileys have sought to identify specific functions associated with uncovered structures and, in some cases, particular industrial activities have been identified (see below). Castle function could change quickly. The castle of Leunenburg, overlooking the River Sajna and uncovered in the last decade, was built from brick c.1325, moated and operated briefly as a commandery centre. When the whole region was attacked by a Lithuanian army in 1347, the associated settlement, church and outer bailey were destroyed, at which point the castle was downgraded to the residence of a *Waldmeister* and the structure would not be expanded (Andrzejewski & Kajzer, 2006).

Origins of design

The origins of the conventual castle design have been extensively debated: some have argued for an origin in Imperial southern Italy (Dehio, 1905); others for the influence of monastic layouts on the castle (Becker, 1914); others for the specific influence of French Cistercians; others that the shape was influenced by Italy but the construction techniques were Saxon; others that it expressed a 'colonial' ideology; others saw Frankish or Antique origins; others related it to the administrative function of the site, or to the tradition of Saxon strongholds; in the 1960s Arsyński saw comparisons between the Prussian castles and Danish fortified camps – influenced by the Danes and Sword Brothers in Livonia. Others interpreted them as a fusion of a monastery, fortification and early-medieval stronghold (Kochański, 2001, pp. 470–471). Tomasz Torbus (1998) critiqued earlier work and sub-divided the Order's conventual castles in Prussia into seven groups, with regional and chronological clusters. The enclosed castle design was neither new in the thirteenth century, nor particular to the Teutonic Order's convents. The adaptation of the quadrangular castle at the end of the twelfth/start of the thirteenth century was driven by royal sponsorship in France and in Italy by Frederick II, as well as in parts of central Europe, specifically in the regions found today in modern Germany and the Czech Republic. The Bohemian (i.e. Czech) influence in the Prussian Crusade was most clearly linked to Ottokar II with the foundation of Königsberg, and it is possible these cultural connections influenced castle design (Arszyński, 2010, p. 44). Crusaders coming into Prussia from various regions of central Europe in the thirteenth century brought ideas of castle building and architectural engineering with them, whilst the builders came primarily from Germany and Silesia (Kochański, 2001, p. 471).

What is clear is that the Teutonic Order imposed its own design on the castles, specifically tailored to its requirements. In this respect, the castles provide direct windows into the ideology underpinning the functioning of the Order in Prussia. It is clear the Knights came to Prussia as an established military order with a clear 'mission statement', and it seems that the standardised iteration of the conventual castle reflected these elements. However, the unique combination of active crusading, colonisation and territorial consolidation in Prussia prompted a new approach to the organisation of the Order and the realisation of its ideals.

This transitional phase is most evident at the Order's castle at Thorn. Excavations here in the 1960s uncovered lower walls and cellars, whilst the upper parts had been destroyed in 1454 and lay as rubble. The earliest walls were constructed from bricks measuring $24.5/25 \times 12.5 \times 8.5$ cm, bricks of similar dimensions were found in the oldest parts of the town walls in Toruń and in the cathedral in Chelmża (Kulmsee). These are not typical of the mid-thirteenth century; in earlier churches in Greater Poland (e.g. Strzelno) and at Oliwa in Gdańsk there are larger bricks. However, similar bricks to those in Toruń are found in mid-thirteenth-century Silesian churches, in the Dominican monastery in Poznań and in the Cistercian church in Mogiła. On this basis, Frycz (1978a, p. 35) suggested that the bricks for the earliest parts of the town and castle at Toruń were brought from Silesia or perhaps even Cracow, along with comparable styles of sacral and castle architecture. The type of moulded vaulting rib used to decorate the chapel at Toruń has analogues with central-southern Europe, as well as Poland, in the second half of the thirteenth century, but is closest to the church of the Cistercian nunnery in Himmelpforte in Würzburg as well as from the portal of the church in Jihlava in Bohemia. Whilst raw materials that may have derived from southern Poland and Silesians are documented amongst the townspeople, those influencing the building of the castle were bishops and officials of the Order with a Franconian background. The first Bishop of Kulm (Chelmno), responsible for the construction of the cathedral in Kulmsee, was a member of the Dominican house in Toruń; a group engaged in commissioning brick buildings. The decades when these buildings were constructed were dominated by clear Bavarian/Saxon and Bohemian/Silesian artistic impulses. In this early, transitional phase the influence of mendicants and bishops in castle design is more evident than a unified programme of construction by the Teutonic Order. Frycz concluded that the Order simply adopted a typical castle design and included within it a monastic space to meet their ideological requirements.

The early castle in Thorn was built as a right-angled structure, consisting of a main southern wing with a dormitory, refectory and chapel (Figure 4.3).

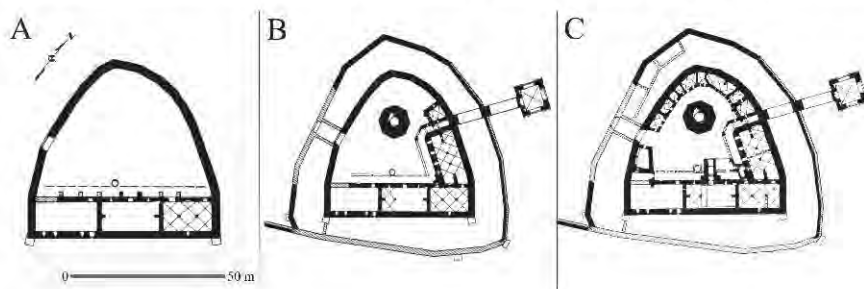


FIGURE 4.3 Phased plan of the castle in Toruń (Thorn), a) first phase in the thirteenth-century; b) c.1340; c) c.1400. The irregular shape of the conventual castle was influenced by the earthworks of the earlier stronghold (redrawn aft. Torbus, 1998, figs. 186–189). The free-standing tower was an usual feature of the Order's castles, also, for example, found in Grudziądz (Graudenz)

Subsequently a small eastern wing with a chapter house and a central tower was added c.1310–1340. The earliest castle was effectively a single building with an enclosed wall, which may have become the foundation for a standardised conventual castle (Chęć, 2011). The form of the castle in Toruń was also partly dictated by the remains of the existing Slavic stronghold (see also chapter 3), as well as the economic and military needs of the Order. Future discussions of the other early castles in the Kulmerland, such as Graudenz, will invariably shed more light on the development of the conventual form, which is traditionally dated to the 1270s with the construction of castles at Elbing, Brandenburg (Ushakovo), Marienburg and Lochstedt, although it is important to note that the early phases of these sites are poorly known and they may have had their own, particular developmental stages. Subsequently, the majority of castles built by the Order had three or four ranges (or wings) and most were either rectangular or quadrangular of more or less similar dimensions, i.e. around 40–52 × 40–66m (the high castle at Marienburg was 51.6 × 60.7m, at Mewe it was 47.4 × 46.5m and at Bischöflich Papau (Papowo Biskupie) 40.3 × 40.3m (Frycz, 1978a, p. 40)), with only 11 per cent of castles having an irregular form (Herrmann, 2007, pp. 81–83). In the case of Engelsburg, this shape can be linked to the local topography (see also chapter 3), but the irregular plans of Balga and Althausen Höhe (Starogród) have been interpreted as the result of building on (and dealing with the foundations of) earlier timber and earth structures.

Castle construction

Castle construction was expensive and time-consuming (Arszyński, 1995) and brick structures begin to replace earlier wooden structures from the mid-thirteenth to mid-fourteenth century (Frycz, 1978a, p. 20), although timber fortifications continue to be built in Prussia into the fifteenth century. Stone foundations were always used to support brick structures (and in the case of waterlogged soils these were set upon timber piling), whilst the walls often consisted of a double row with the gap between filled in with rubble, stones and mortar or, in some cases, purely solid rows of brick (Jesionowski, 2010, p. 17). The majority of castle building took place from the second half of the thirteenth century and the last conventual castle was constructed at Ragnit (Neman) into the first decade of the fifteenth century, although smaller structures continued to be built (Frycz, 1978a, p. 21). The most significant change came in the early-fifteenth century when architectural developments can be connected with the proliferation of artillery in siege warfare (Polński, 2007a; see also chapter 8).

Whilst the various external influences shaping the early castles of the Teutonic Order continue to be debated, once the template was established the process of construction reflected the ambitions and agendas of individual commanders, who organised and administered local building works, co-ordinated the construction process and distributed funds. The role of the

Order as a unified institution in initiating and financing castle construction is also evident. On one level, the regularity of many structures (but certainly not all, including the most important convents) points to the use of an established template and officials of the Order routinely visited the most important houses (Gancewski, 2001, pp. 19, 77). However, decision making during the process of construction, especially concerning practicalities, was negotiated between architects and masons (Arszyński, 2010, p. 42). Moreover, the layout, architecture and spatial organisation of the Order's castles can be closely related to their specific function, with changes reflecting new financial and strategic investment in expanded roles for these structures. The construction history of each castle therefore reflects the gradual and regionally varied administrative structure of the *Ordensstaat*, and accounts for the complicated taphonomy of these sites. Episodes of demolition and rebuilding often truncated earlier phases, but archaeologically it is possible to see levelling surfaces in preparation for new buildings as evident in many parts of the Malbork castle complex, and traces of dragging building materials have been identified during excavations in Toruń (Dębski, 1991, p. 31). The main castle was often situated on higher ground, usually where an earlier stronghold had occupied a naturally defensible location. Excavations at the castle in Toruń in 1937 on the high ground between the inner and outer walls revealed that the first level of the castle here was significantly lower (Kochański, 2001, p. 462). At Malbork, the earliest castle was built on the highest point, which appears to have been artificially raised, and the northern parts of the complex were built on lower, gently sloping, albeit levelled, ground.

Written sources indicate a sophisticated level of organisation and technical expertise involved in castle construction. Labourers came from local towns and castle households, and there were also itinerant seasonal workers, especially bricklayers, sawyers and shingle makers (Arszyński, 2005, p. 126). Several castles produced their own bricks, but others had to buy in the materials from other brickyards (Gancewski, 2001, p. 88). Similarities in architectural and decorative styles also point to the presence of regional workshops. In the high castle at Malbork, the 'Golden Gate's' vaulted vestibule, column capitals and archivolt have been compared to the ceramic decoration of the Brandenburg cathedral complex where, in 1235, the cloisters were constructed from bricks with specific dimensions. This appears to have influenced the centre of sculpture and brick production in Elbing, which was founded in the mid-thirteenth century. Elbing was the centre of the general chapter from 1251 and for the latter decades of the thirteenth century it represented the centre for driving building activity across the northern part of the Order's territories. The Cistercian influence is evident in these early conventual castles where the use of straight, symmetrical towers is reminiscent of the churches attached to the abbeys at Chorin, Lehnin (both in Brandenburg) and Kolbatz (western Pomerania). This monastic influence is visible in the early castle at Marienburg, where the sculptors and ceramic artists came from a tradition associated with

Brandenburg – the brick-working branch of Magdeburg (Pospieszny, 2002). The use of timber continued into the fourteenth century, and earlier structures were maintained for many decades – transitional forms would have included both timber and brick elements. Timber superstructures were often added to brick walls and filled in with clay, or sometimes brick. At Osterode (Ostróda), the brick castle was only constructed from 1349, gradually replacing the timber structure over a period of 20 years. Not all castles developed from timber and earth structures. Excavations at Toruń have revealed that field stones were used as foundations for the Order's castle, suggesting a permanent stone and brick structure was envisaged from the outset (Czacharowski, 1983, p. 40).

The Order's castles were decorated with a combination of religious and heraldic imagery, although very little of this has survived *in situ*. Decorative elements were not restricted to painted and glazed brick, but included stone, moulded artificial stone which was then worked and coloured, as well as wood and metal. At Elbląg, excavations in the northern part of the outer bailey uncovered fragments of ceramic frieze tiles used in tracery, reminiscent of the southern German style from the 1320s and 1330s. They have been associated with the residence of the Prussian Master built in the first half of the fourteenth century (Rynkiewicz-Domino, 2010b). Excavations in Elbląg also indicated that ceramic architectural elements, such as vaulting ribs, were coloured in polychrome. Although a fragmentary corpus of material, it is possible to see elements of the Teutonic Order's ideology visually expressed in these decorative schemes.

The convents as centres of spiritual life and promoters of the ideology of holy war

The Rule of the Order outlined the life of a monastic community. New members were required to undergo a novitiate and swear vows of perpetual chastity, obedience and personal poverty (Sterns, 1969; Trupinda, 2004b). Whilst the brethren of the Order participated in regular military training and their castles fulfilled a visible military role, their daily lives were dictated by cycles of prayer and contemplation. As elsewhere in medieval Europe, spirituality was guided, facilitated and reaffirmed by visual culture.

Castle chapels

The chapel was the focus of a convent's regular devotional activities and a number contained relics. Artefacts associated with castle chapels have been recovered during excavations and some have survived in private collections, representing significant investment in liturgical objects and reliquaries (see also chapter 6). Very few chapels have survived in the Order's castles but a small, representative sample of religious sculpture and decorative elements has been preserved *in situ*, set aside in museums or recovered during excavations. The chapels were usually reserved for the use of the convent, although at Christburg, the church

situated at the foot of the castle may have served both the local parish and castle community (Korpysz, 2004, p. 18). The decoration of castle chapels (and some churches) would provide the Order with an opportunity to express its political authority and crusading ideology. Partly restored in the 1880s, the 'Golden Gate' into the church of the Blessed Virgin Mary is the best known example of a decorated chapel entrance, still largely intact in the high castle at Malbork (Figure 4.4). Reminiscent of the style found in churches in Lower Saxony in the mid-thirteenth century most likely reflecting an influence from the masons' workshop at Magdeburg, the moulded doorway stands at almost 4m; its archivolt is decorated with the figures of the wise and foolish virgins, as well as grape vines, acanthus leaves and hybrid animals running up each side of the arch, all covered in polychrome and gold leaf. On the left side a siren-bird hybrid, a pig with oak leaves and acorns and a centaur emerge from the carved foliage; on the right a siren, locust and dragon are represented. Flanking the main archway

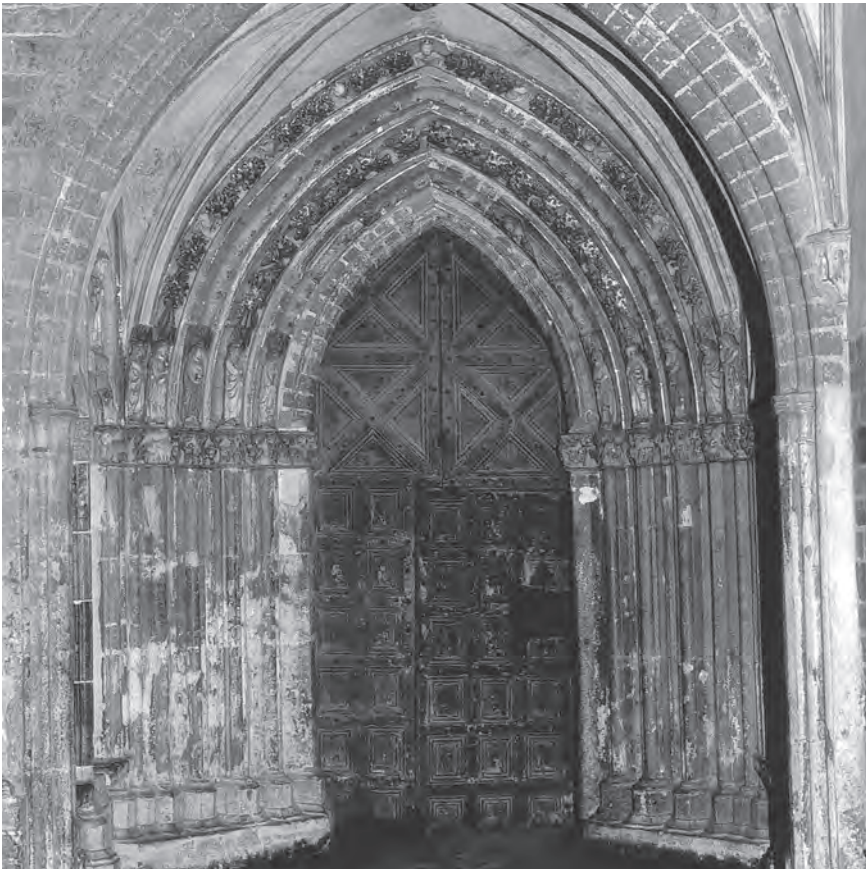


FIGURE 4.4 The 'Golden Gate' in the high castle at Malbork (Marienburg)

are figures of *Ecclesia* – the Church Triumphant – and *Synagoga* with the characteristic blindfold, representing the inability to see the truth of Christ within the Jewish faith, whilst the outer archivolt includes figures of Solomon and most likely Christ in majesty. The use of monstrous hybrids and animals was widespread in the church decoration of the Order's convents; a fragment from Brandenburg (Ushakovo) bears a lion, and from Lochstedt a dragon (Pospieszny, 2010b). These are typically interpreted as didactic and apotropaic devices, common in the architectural vocabulary of medieval European churches (Camille, 1992). On the 'Golden Gate', the hybrid resembling a hooved lion carrying a shield with a cross has been interpreted by Pospieszny (2010b) as representing the desire to enter the church beyond – the earthly incarnation of paradise. The apocalyptic confrontation between Good and Evil was explicitly associated by the Order's propagandists with the fight against the Prussians (Kutzner, 2010, p. 241). Whilst the iconographic programme has been interpreted as the Church under attack from evil, the latter represented by the hybrids, here the viewers would be reminded of the Order's enduring struggle against the pagan Prussians and Lithuanians. This war would be fought with physical and spiritual weapons, the latter represented by the missionary activity of the Prussian Church. A popular motif on chapel portals representing the evangelising agenda of the Order's state in Prussia was the apostolic college, which also symbolised the Church Triumphant (Błażejewska, 2010d, p. 169). In Sambia, St Adalbert was promoted as a regional patron and was represented in a wall painting in Wargen castle (Kotelnikowo) dating to the mid-fifteenth century (Domasłowski, 2010, p. 110) as well as in effigy within Königsberg cathedral; a focal point for the Order's *Reisen*.

In this respect the iconographic programmes of the Prussian convents functioned in much the same way as in the rest of contemporary Christendom; however, their deployment as an ideological tool within a state run by a military order was virtually unique. These portals are poorly preserved in other conventual castles: Lochstedt, Elbing, Mewe, Rehden, Gollub and Strasburg (Brodnica) (Błażejewska, 2010a, 2010d). At the Order's castle in Toruń, decorated archivolt fragments were recovered during excavations bearing similar motifs and dating to the mid-thirteenth century (Domagala, 1966), likewise on fragments recovered from Elbing which are in all probability earlier than the 'Golden Gate' (Rynkiewicz-Domino, 2010a). The iconographic programme on the north and south portals of the chapel of St Anne in Marienburg, dating to c.1340, contained well-established motifs: the coronation of the Virgin and the wise and foolish virgins, the latter being led into a mouth of hell. On the south tympanum the representation of the finding of the True Cross provided a direct reference to Jerusalem (Jurkowlanec, 2010a). Such references to the Holy Land reinforced links with the Teutonic Order's heritage and original mission, although the most important element to be transferred to Prussia and reframed in the context of the Order's political, crusading and devotional culture was the association with the Virgin Mary.

The cult of the Virgin

Marian symbolism permeated the decorative schemes of convent buildings; indeed, it proliferated throughout the visual culture of the Teutonic Order. Mary was the most important patron of the Order and Prussia was conquered and ruled in her name, a concept that was promoted into the mid-fifteenth century. The Knights presented themselves as Mary's vassals and defenders and, in turn, their authority was protected and legitimised by the Virgin (Dygo, 1989); one of the most popular motifs employed on the Order's emblematic material culture is the coronation of the Virgin, which features on all five types of seal used by the Grand Commander from the thirteenth to fifteenth century (Trupinda, 2010a), on wall paintings and sculptures within convents and decorating religious manuscripts produced by the Order (Dygo, 1989, p. 65). The diversity of Marian imagery produced in the Order's state has been extensively documented by art historians (for a recent synthesis see Błażejewska, 2010b; Woźniński, 2010), although relatively few early examples have survived. The oldest wooden polychrome figure is a representation of the enthroned Virgin and Child in the church in Gruta, dating to the third quarter of the thirteenth century. The statue was an import, probably intended for the chapel of the castle in Roggenhausen (Błażejewska, 2010a), whilst the effigy of Mary on the main altar in the Dominican church in Elbing, noted at the start of the nineteenth century, was almost certainly brought over from the Order's castle after its destruction in 1454 (Nawrońska, 2003, p. 327). Likewise, a figure of the Virgin and Child and Christ Enthroned, incorporated into the western wall and upper level of the tower in the parish church of Graudenz, most likely derived from the Order's castle (Woźniński, 2010, p. 172).

The most striking example could be found, appropriately, at Marienburg – Mary's castle. An 8m-tall polychrome sculpture of artificial stone representing the crowned Virgin and Child stood outside the eastern end of the church, set up during the extension of the north range in 1331–1344 (Pospieszna, 2010c). The figure, decorated in mosaic tiles c.1380, would have been visible from some distance to anyone approaching the castle from the east (Figure 4.5). The chapel itself would have been extensively decorated with Marian imagery, little of which has survived; a wall painting showing a Teutonic Knight kneeling before the enthroned Virgin and Child is a rare piece from the fourteenth century, perhaps a votive image or epitaph of murdered Grand Master Werner of Orseln (Dygo, 1989, p. 67). The Great Refectory in the middle castle was decorated with a scene of Mary's Coronation (see below) and the 'chamber of the Grand Master's companions' in the Grand Master's palace contains a scene with a knight kneeling before the Virgin. This theme of supplication was popular and survives on a reliquary commissioned by the commander of Elbing in 1388, which includes St Barbara in the vignette. It is also repeated in the portable *Schreinemadonnas* where Teutonic Knights and their supporters were depicted under the Virgin's protective robe (see chapter 6). The meaning of

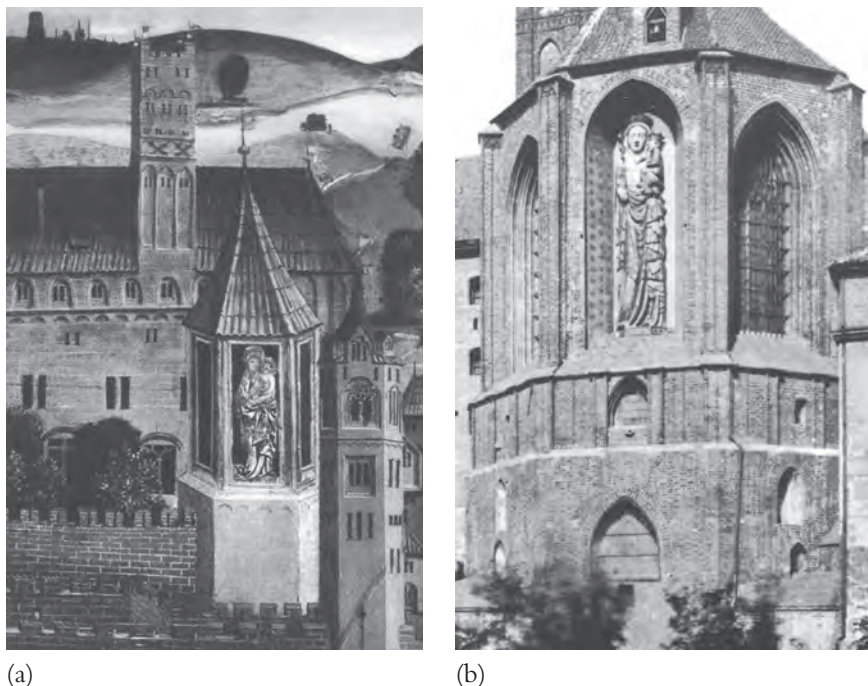


FIGURE 4.5 The Virgin and Child at the eastern end of the high castle church in Marienburg (Malbork). A rendition from the lost painting ‘the siege of Marienburg’ c.1480 (a) is compared with a photograph taken before 1945 (b) (aft. Kilarski, 2007)

these images has been extensively debated and, given the close identification between Mary and the Teutonic Order, it is difficult to untangle the religious and apotropaic functions of Marian art from its use as a political and corporate emblem (Wozniński, 2010, p. 172). Nonetheless, the devotional importance of Mary is underlined by her central role in the Order’s liturgy (Gancarczyk, 2010, p. 273). The popularity of Mary proliferated throughout medieval Prussia with church dedications and even ships frequently named after the patron and suzerain of the *Ordensstaat*. This partly reflects the conceptualisation of Mary as protector of Christian Prussia, vividly demonstrated by the Order’s propagandists in the failure of Polish armies to take Marienburg in 1410 (Dygo, 1989, p. 68), but as the cult of the Virgin was politicised it could also be deployed in opposition to the Order’s sovereignty (see also chapter 6).

By the later decades of the thirteenth century, the towns and convents of medieval Prussia had become major producers of religious artefacts, meeting the liturgical needs of the growing number of churches and chapels (discussed in more detail in the next two chapters). Religious sculptures have been better preserved in churches than castle chapels, such as in Ostromecko (dating to

the early decades of the fourteenth century), Małowy Wielkie (c. 1350) and Stara Kościelnica (c. 1440). In the latter there are also extant figures of the other popular saints venerated by the Teutonic Order, notably St George (dating to the end of the fourteenth century) and St Barbara (c. 1420). The local luxury raw material – amber – which had been widely traded across Europe up to the thirteenth century became predominantly used for decorating religious objects such as rosaries, figurines of the Virgin Mary and censers. Its use in this context was *en par* with ivory and, in some cases, both materials were combined. A candelabra consisting of a walrus cranium complete with tusks and decorated with a large amber figure of the Virgin, a product of the Marienburg workshop, was presented to Sophia of Bavaria by the last Grand Master of the fourteenth century, Konrad of Jungingen. The Order monopolised the collection of amber with the greatest concentrations housed in the residence of the Amber Master at Lochstedt, where 51½ barrels of amber were recorded in 1392 (Mugurēvičs, 2003a, p. 94); indeed, the largest deposits of amber in the world are located in the north-western part of the Sambian Peninsula (Lukashina & Kharin, 1999, p. 27). With the dissolution of the Order's state, significant international trade in amber would only commence again in the sixteenth century (Budrys, 2001, p. 267).

Reisen and the crusading ideology of convent buildings

From the mid-thirteenth century, the iconographic programmes of the Order's convents contain a strong apocalyptic undertone in their use of the motif of the struggle between Good and Evil. More specific apocalyptic scenes linked to Biblical exegesis were also used to decorate parts of castle complexes in the fourteenth century. The contextual background from this imagery was the persistent war with Lithuania, which continued to be framed in the language of crusade. Peter of Dusburg saw no respite in the crusades of the Teutonic Order when he wrote '*Explicit bellum Prussie. Incipit bellum Lethowinorum*' (*Chronicle*, III: 221); after the official subjugation of Prussia in 1283 the 'eternal crusade' against Lithuania began. Over the course of the fourteenth century, and particularly from 1360–1393, the Teutonic Order's ongoing war against Lithuania provided the European aristocracy with an outlet for crusading. Knights would journey from all over Christendom (including from 1370–1385 Polish knights from Silesia and Masovia) to participate in *Reisen* or expeditions across the eastern frontier of Prussia into Lithuania. As many as 299 separate expeditions were organised between 1305 and 1403, with regular campaigns from the 1360s intensifying in the following two decades (Paravicini, 1989). The expeditions undertaken in *Dei laudem et virginis Marie* would begin on significant days associated with the Marian calendar: the Feast of Our Lady of the Candles (2 February), the Feast of the Assumption (15 August) and the Birthday of the Virgin (8 September) (Dygo, 1989, p. 67; Chodyński, 2003, p. 19). As a result, the *Reisen* became closely tied to the celebration of these feasts, not only evoking the Marian ideology underpinning the Order's holy war, but also

emphasising the penitential aspect of crusading and its participants as pilgrims (see also chapter 1). They would be led into battle by the Virgin; the banner emblazoned with her image and first referenced in the fourteenth century ranked amongst the highest in the Order (Dygo, 1989, p. 68). Pagans were the primary target in the fourteenth-century campaigns, although the written sources of the Order indicate the *Reisen* were not only *contra Lithuanos* but *et Ruthenos*, in other words also targeting Rus' schismatics within Lithuanian territory east of Sudovia (Semiańczuk, 2002, p. 227).

Whilst the impetus for the *Reisen* were the benefits conferred by crusading against pagans, contemporary sources describe this region as a wilderness, a suitable landscape for chivalrous adventure and hunting, an ideal *locus* for physical and spiritual quests. The *Reisen* became such a knightly institution that even the official conversion of Lithuania to Christianity did not diminish their popularity, and crusaders continued to flock to Prussia in search of adventure into the 1420s; the tradition was upheld by German and Burgundian knights into the mid-fifteenth century (Supruniuk, 2000, pp. 32–33). The infrastructure and logistics required to support this regular influx of knights was already in place by the mid-fourteenth century, indeed German crusaders had arrived in the Order's state in search of a crusading experience as early as 1304, but it developed to cater for what has been described as a 'package' crusading experience and a significant economic enterprise for the Teutonic Order. Knights expected feasts, tournaments, opportunities to hunt in the forested borderlands, and all the ceremonial trappings of chivalric culture. Whilst in Königsberg, they made pilgrimages to the nearby churches of St Catherine in Arnau and Juditten, and to the chapels of St George and St Anthony in the suburbs (Paravicini, 1989, p. 305). Some of the individual companies numbered into the hundreds. For example, Henry, Duke of Lancaster (the future Henry IV of England), was accompanied by a retinue of 400 people in 1351–1352, whilst the Austrian prince Leopold III brought 1,500 horses with him in 1371–1372 (Supruniuk, 2000, p. 35). At present we know the *Reisen* largely from contemporary written sources – studied and published most extensively by Werner Paravicini (1989–1995) – but they have also left material traces in the borderlands between eastern Prussia and Lithuania. On a number of occasions the *Reisen* would reach Vilnius and Trakai in the heart of the Lithuanian state, and future research on the impact of the Order's fourteenth-century crusades would benefit from an integrated study of settlement and human activity in the eastern commanderies and much of western and south-western Lithuania.

The main base for launching the *Reisen* was Königsberg, where guests were lodged in hospices within the town (Paravicini, 1989, p. 281), but a number also proceeded from the frontier castles of Balga, Brandenburg, Ragnit and Rastenburg (Kętrzyn). Grand Master Dietrich of Altenburg instigated the building of castles specifically for the *Reisen* in eastern Prussia; the so-called Jurgenburgiem (or Marienburgiem) below the outlet of the River Dubysa in 1336 (which flows through Samogitia) and the following year Bayerburg (Lithuanian Raudonė),

named after a participant in the *Reisen*, Duke Henry of Bavaria. This timber and earth fortification was situated overlooking the River Nemunas and a planned cathedral was intended as a base for extending the Order's state into Lithuania (Chodyński, 2003, p. 18). The network of smaller castles on the eastern border also served as bases for the *Reisen* in the late-fourteenth century, including most probably the procurator's residence at Lyck (Elk) constructed after the official conversion of Lithuania to Christianity (Białuński, 2002, p. 76), but whilst the *Reisen* were still actively pursued by the Order. Unfortunately, the decorative schemes of these castles have not survived and there is little indication of whether the Order's crusading ideology was particularly prominent in these frontier sites. Visiting participants did, however, leave their mark. European knights arranged to have their arms painted in the cathedral of Königsberg, in the chapels of St George and St Anthony in the town and in castles and churches on the road from Marienburg. In Königsberg, these were destroyed in the 1940s, although photographs have survived in the archive of the Institute of Art in Warsaw (along with the wall paintings from the church in Juditten). Part of a wall painting in the cathedral from 1360 – heavily modified during nineteenth-century restorations – represented pilgrims arriving in Prussia as crusaders. Robert of Namur took part in the *Reisen* four times and his heraldic emblems are represented, whilst another fragment visibly showed a Polish knight with the Kościesza coat of arms (Nowakowski, 1994, p. 34). Participants who died in the course of the expeditions could also be buried in the cathedral; the English knight Sir Geoffrey Scrope died in his early 20s in 1363 following a siege of a Lithuanian stronghold, and his companions arranged for his coat of arms to be included as a panel in one of the cathedral's stained glass windows and on a slab in front of the altar. European crusaders were also buried in St Mary's Church in Danzig (Jurkowlaniec, 2010, p. 214). The castles and larger towns of central Prussia, such as Marienburg, Elbing and Thorn, were not primary destinations for *crucesignati*, but they were occasionally visited *en route*, particularly the Order's headquarters by the most distinguished guests (Paravicini, 1989, p. 265). The presence of European knights in these other locations is attested by occasional finds of decorated weapons, such as a fourteenth-century sword pommel found during excavations in Frombork, decorated with a heraldic eagle of Thuringian or Hessian origin (Chodyński, 2003, p. 29).

In the light of its Marian context, the Order's promotion of chivalric culture is perhaps best compared with the secular experience of crusading. Scenes of tourneys or Christian knights fighting are rare within the Order's decorative programmes. One example of a column capital showing mounted European knights fighting was recovered from Kwidzyn after works in the southern wing of the castle in 1798, and was taken to Malbork almost a century later. The mounted knights bear specific heraldic emblems on their shields, perhaps references to Czech and Polish kings, although the scene is not very clearly understood (Chodyński, 2010). A more popular decorative motif found in convents is the opposition between the Teutonic Knights and Prussians, clearly expressing the

ideology of holy war waged by the military orders. A moulded brick tympanum from Birgelau castle (Bierzgłowo), dated c.1270–1280, shows a Teutonic Knight mounted on a horse flanked by two Prussian warriors, one standing upright interpreted as an ally of the Order (presumably a Christian convert) and another curled up, representing the defeated pagan enemy (Zawadzka, 2010). The Great Refectory in Marienburg was decorated with scenes representing the clash with Prussian pagans; the southern wall was decorated with three painted bands depicting the Order's armies (see below), whilst a column capital from elsewhere in the castle, dating to the first quarter of the fourteenth century, is carved with figures of Teutonic Knights fighting pagan Lithuanians. A popular theme found on surviving roof bosses is the Holy Family's flight from Egypt, found for example in the Great Refectory and high castle church in Marienburg, and the chapel in Thorn. This vignette can be understood as an explicit symbol of the dissemination of Christianity to bandits and pagans, and the metaphorical triumph of crusading ideology (Pospieszny, 2010a, p. 42). The Order was particularly interested in promoting the cults of St George and St Martin; both saints had confronted pagans, whilst St Michael the archangel was also popular in his role as divine warrior. As in the case of the wall painting at Lochstedt castle showing Michael as crusader slaying the apocalyptic dragon (Figure 4.6), it is possible to interpret these scenes as reflections on the Order's struggle against the Balts, and the inevitable outcome of righteous war (Domasłowski, 2010, p. 112). The audience of the Lochstedt paintings would have included guests of the Order – participants in the *Reisen* (Kutzner, 1995, p. 35).

Peter of Dusburg was writing in Königsberg in the early decades of the fourteenth century, at a time when the Order's expanded state was established and many important conventual castles were already standing. Whilst his intended audience was the papal court, his presentation of the wars of the Teutonic Knights as a confrontation between Christianity and paganism is consistent with the Order's contemporary ideology. Nicolaus of Jeroschin's narrative has been juxtaposed with Peter's, with its stress on warfare and political intrigue rather than the religious dimensions of crusading (see also chapter 1). Wigand of Marburg's narrative, written in the early 1390s, has been described as 'knightly' and resonates with a more evident shift in the mentality of the Order's members (Zonenberg, 1994, p. 76). The religiosity of the Teutonic Order and its commitment to the crusading movement is most clearly evident in the consistent design of its fortified monasteries, many of which were built or extended in the first half of the fourteenth century. The most characteristic aspects of this religiosity, fused with the very identity and *raison d'être* of the Order, were continued and increasingly elaborate expressions of Marian devotion. The decline in the importance of religious life within the Order in the latter half of the fourteenth century is a topic that has been discussed extensively by historians; however, the persistence of a crusading ideology can be supported by artistic sources and the character of buildings constructed in this late period. Small procurator's complexes continue to be furnished with chapels, new conventual buildings

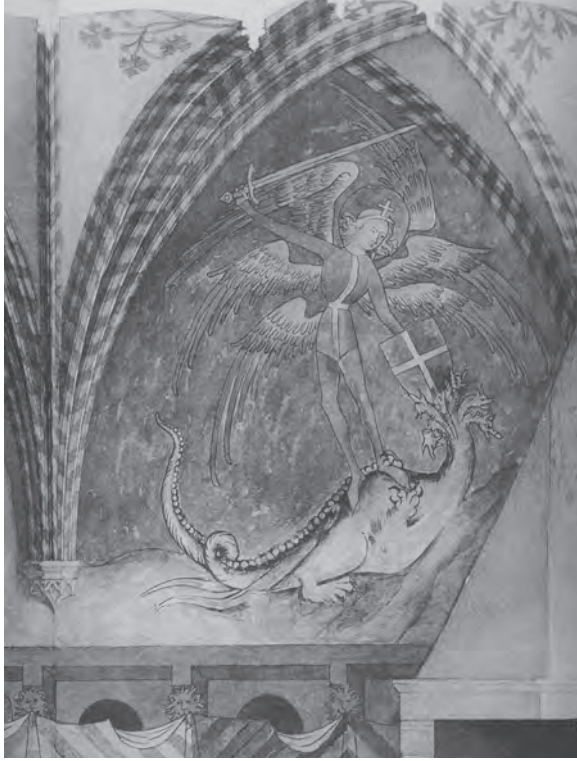


FIGURE 4.6 A coloured drawing of a wall painting at Lochstedt (Pavlovo) castle showing the archangel Michael as a crusader, slaying the apocalyptic dragon. It is virtually impossible to estimate how many similar paintings decorated the interiors of the Teutonic Order's castles before the sixteenth century (*Schloß Lochstedt und seine Malereien*, plate 3, Berlin, 1910)

maintained the earlier integrated layout reflecting the communal lifestyle of the brethren, and the sponsorship of religious art, including the promotion of the Virgin within the Order's visual ideology, persists into the fifteenth century. Even the Grand Master's court, with its increasingly secular household, revisited its ideology through the decoration of the various spaces in the western range. Wigand of Marbug's narrative frames the Lithuanians as worthy and valorous opponents rather than as demons to be annihilated; the contrast with Peter's earlier work is stark. Religious elements are included throughout Wigand's *Chronicle*, but are presented with no multi-layered meanings and so are consistent with the context of the knightly milieu (*ibid.*, pp. 92–93). The practical organisation of military resources in the Order's state can therefore, depending on which interpretation you find more convincing, be either integrated or separated from the lifestyle practised within convents and lesser residences.

The castles as centres of military organisation

Throughout the fourteenth century, the Order was committed to its war against Lithuania but, in the south, there were also disputed territories with Poland which saw numerous incursions from both sides. From the 1380s, the war against Poland and Lithuania effectively put the entire *Ordensstaat* on alert. Although the Order's brick and stone castles were built during periods of relative stability and their integrated spaces reflect a strong emphasis on the contemplative life of the brethren, they also expressed militarism, not only symbolically through their use of the architectural vocabulary of secular castles, but in the practical fortification of these sites. These included thick walls, corner towers, easily defensible connections between the main castles and outer baileys, and *Danskers*. Even with the provision of large windows for chapels, as in Rehden and Marienburg, these structures were constructed to be defensible. Furthermore, the location of castles in inaccessible and defensible sites, in a number of cases taking advantage of earlier earthworks, continued into the fifteenth century. Many scholars have argued for a regional strategy to the relative positioning of castles within the Order's state. Some have been associated with forming a defensive line such as two emanating from Thorn in the Kulmerland: one running north-west to Graudenz (Grudziądz) and the other south-west to north-east linking Gollub, Strasburg and Brattian (Bratian) (Gancewski, 2001, p. 23), or between Lötzen and Eckersberg (Okartowo) in eastern Prussia. Some of the castles in the lower Vistula valley such as Birgelau (Bierzgowo) may have been constructed to be deliberately within line of sight of each other (Haftka, 1999, p. 40). In 1410, Strasburg and Gollub both played key roles on the frontline; the former was strengthened by order of the Grand Master in July of that year (Gancewski, 2001, p. 69). The Order's Grand Masters visited strategically important castles most often; Thorn was the most frequently visited in the Kulmerland, followed by Graudenz and Rehden, with the region itself receiving over 12 per cent of all visitations within Prussia (*ibid.*, p. 78). In fact, both strategic and economic factors influenced the construction of the Order's buildings. The castles along the Drwęca and Vistula were all rebuilt at the instigation of commander Konrad Sack, who was also responsible for driving colonisation aimed at intensifying the exploitation of the territory under his jurisdiction. In the late-thirteenth century, especially on the Osa and in the eastern part of the Schönsee's (Kowalewo Pomorskie) commandery, there was intensive settlement, which strengthened the defensive structure of the Order in the central part of the region (*ibid.*, p. 14).

The Order's convents functioned as working military centres, concentrating the production, maintenance and storage of arms and armour, and providing constant martial training. They were also the rallying points for the Order's armies which were organised centrally within each commandery and largely based on the obligations of local townspeople, knights and other tenants to provide military service. In this respect, a military response could be quickly

and systematically organised across the whole of the Order's state. Later, the Order would also employ mercenaries who would be housed in its larger castles. Alongside workshops for blacksmiths and armourers, each convent had a space for storing weapons. From the second half of the fourteenth century, detailed inventories highlight a select group of castles with the largest supplies of arms; castle armouries contained 600,000 arrows between 1364 and 1409, of which 24,000 were in kept in Marienburg, as well as over one-third of all armour in the Order's state (*ibid.*, p. 78; see also Nowakowski, 1986). Here the most important store of arms was in the so-called *kanwan*, a building located on the eastern side of the outer bailey (Chodyński, 2003, p. 12). Inventories of arms in castle stores from the mid-fourteenth and fifteenth centuries reveal that weapons and armour were stockpiled within the most strategically important castles of the Order, particularly in the Kulmerland and at Marienburg, in preparation for warfare with Poland (Gancewski, 2001, p. 77).

Fragments of arms and armour have been recovered from numerous excavations of the Order's sites in Prussia, and a number of pieces have survived extant in private collections, and are now on display in museums (Chodyński, 2003). Crossbow bolts and arrowheads are found most frequently, sometimes in large quantities. Armour is comparatively rarer; fourteenth-century helmets derive from Toruń, Olsztyn, Melno (allegedly found on Grunwald battlefield) and Wystruć; breastplates have been recovered from Wielka Nieszawka near Toruń and at a range of other sites across Prussia (Nowakowski, 1994, pp. 38–41), fragments of scale armour at Radzyń Chelmiński (Wiewióra, unpublished) and two pavises (large, full-body shields) painted with black crosses survive in collections in Nürnberg and Warsaw. Swords attributable to the Teutonic Order are very rare, although more have been found in excavations and rivers than have survived above ground. Three swords have been found in connection with the battle of Płowce (1331), a complete hand-and-a-half sword dating from 1340–1400 was recovered from the River Tina which flows into Lake Drużno near Elbląg, with a pommel decorated with the Jerusalem cross and smaller gold crosses (Chodyński, 2003, p. 28). Most recently in 2011, a complete *koncerz* (or *estoc*, a long, straight, two-handed stabbing sword) was found under the bridge next to the New Gate at Malbork castle, dated by associated timbers to the mid-fifteenth century (Figure 4.7). The upper portion of the square, cross-sectioned blade was decorated with two gold crosses and may have belonged to a knight in the castle garrison, and the loss of the weapon in the ditch can most probably be linked to the events of the Thirteen Years War (Żabiński, 2011; Sawicki, pers. comm.). The use of crosses to decorate swords was popular throughout medieval Europe and reflected the link between religion and warfare embodied in the crusading movement. Religious imagery was equally applied on artillery pieces. The muzzle of a bombard found in the castle in Kurzętnik (Kauernik), dating to before 1410, was decorated with the image of the Virgin Mary (Chodyński, 2003, p. 88). Arguably the most important assemblage of arms and armour derives from excavations at the stronghold at Plemięta which belonged to a private knight (see



FIGURE 4.7 A *koncerz* still *in situ* under the bridge next to the New Gate at the castle in Malbork (Marienburg) (Z. Sawicki)

below), whilst at the manor of Słozewy which belonged to the commandery of Strasburg, archaeologists recovered over 2,000 bolt heads stored in cist and clay pots (Kola & Wilke, 1976).

These sporadic examples combined with the detailed inventories from the late-fourteenth and fifteenth centuries provide an important insight into the organisation of military resources within the Order's state. This becomes particularly interesting when considering whether the protracted process of colonisation, and specifically the coming of the Teutonic Order, introduced new technology into the region. The superior arms of the Order (particularly crossbows) have been seen as a major reason for the success of its military campaigns, from both practical and psychological perspectives (Ekdahl, 1998). However, detailed studies of the armour indicate the Order used a diverse range of helmets and also retained old forms within its armouries – much like in the rest of Europe. The mail hauberk, popular in the thirteenth century, was slowly combined with and then replaced from the mid-fourteenth century by steel plate armour. The Order also adopted small plate armour, probably from the local Balts, although by the end of the thirteenth century the most widely used was the coat of plates which was eventually replaced by the breastplate. Plate armour became increasingly sophisticated in the fifteenth century, although mail continued to be used into the sixteenth century. That the armour and arms found in the Order's castles were of average quality and not particularly modern reflects the fact that they were used by the infantry, whilst the best-quality examples were the reserve of the Order's equestrian elite (Nowakowski, 1994, p. 59). Horse armour, introduced in the second

half of the fourteenth century, was made from mail or plates, although earlier equestrian equipment survives in the form of rowel spurs, in use from the end of the thirteenth century with longer shanks from the mid-fourteenth century (*ibid.*, p. 109). The Order's armour was not particularly distinctive, and the same types of armour and swords were also widely used in Poland, as well as other parts of western and central Europe. In this respect, there was no uniformity in the appearance of the Order's armies, which consisted of an eclectic mix of knights, burghers, peasants and mercenaries. The first major change in this region of Europe saw the replacement of the sword with the sabre in Poland following Hungarian fashions, which only gained popularity from the early-sixteenth century (*ibid.*, p. 116). The Order's castles were evidently central to the organisation and management of military resources; future excavations may shed more light on the range of weaponry used at smaller sites on the front line in eastern Prussia, as well their provenance. Whilst castles were built with defensive capabilities in mind, their form also reflected their role within the administrative hierarchy which crystallised in the early decades of the fourteenth century.

Castles as political, administrative and intellectual centres

The Order's castles in the fourteenth century were very clear symbols of lordship (Kochański, 2001, p. 459), but they have also been linked with contemporary ideas of the replacement of chaos (i.e. pagan society) with order (i.e. civilisation represented by the town and castle), and a representation of the heavenly Jerusalem on Earth (Paszkievicz, 2009, p. 78). They were the producers and consumers of the Teutonic Order's politicised visual culture, paralleled in papal palaces although not in the territories run by the other military orders or in the Holy Land. Beyond the broad association of red brick castles with authority, their form was consistently tailored to their administrative functions within the commandery system. The development of the Marienburg complex began soon after the relocation of the Order's headquarters from Venice and, over the course of the fourteenth century, the residences of the Grand Masters, masters and commanders of the Teutonic Order began to be fitted with furnishings that were comparable to those found in secular palaces, castles and manor houses. However, an equally appropriate analogy can be drawn with the larger monastic houses, where the residences of abbots and priors, segregated from the rest of the brethren, were typically larger and more elaborate, expressing both the internal hierarchy of the community and the external political role of monastic leadership. This was also in keeping with the role of the military orders as sovereign lords, responsible for the administration, bureaucracy, judiciary and security of their territories (Boas, 2006). At the European level, the most striking expression of this religious authority was the design and decoration of the papal palace in Avignon, which contained a similar and, to contemporaries, a seamless fusion of clerical and secular lordship (Steane, 2001,

pp. 70–74). Smaller residences took a variety of forms. At the procurator's complex at Małowe Małe, 12km west of Malbork, the only visible remains consist of a large building 142.7m in length and 13.8m wide which may have included a chapel in its northern part, although a kitchen, bakery, brewery and sleeping quarters are also documented (Chęć, 2004, p. 246). The procurator's castle at Seehesten (Szeszto), built at the end of the fourteenth century and situated between Lakes Juno and Salet, was the focus of archaeological excavations in 1984–1986. These revealed a comparatively small complex consisting of a regular 15m-sided layout with a northern residential range, and the possibility of timber service buildings in the courtyard. An inventory from the early-fifteenth century also listed a chapel, kitchen, bakery, brewery, armoury, granary and other spaces inside and beyond the complex. The relatively small size and apparently limited fortifications of the site have been interpreted in the light of the conflict with Poland, where the Order's main security concerns were focused in the first decade of the fifteenth century (Haftka, 1999, p. 302).

When considering the hierarchy of sites, it is also useful to include the character of private knightly residences built in medieval Prussia. The Order encouraged German and Polish knights to settle in its lands, providing them with a range of privileges as incentives (see also chapter 3). This was very much part of the deliberate process of colonisation and resulted in the construction of private knightly residences, clustered in certain regions (e.g. Poliński, 2003, pp. 198–200). There are few written sources surviving for these private knightly castles and most of our knowledge is derived from archaeological investigations (Arszyński, 2005, p. 126). The majority of these have not been excavated, but the few that have are comparable to late medieval manors found in Poland. None of the structures built by the knights were particularly large; they were certainly much smaller than those built by the Order, reflecting the relative wealth of these two colonising groups. Excavations of the fifteenth-century knightly residence at Plemięta indicated these types of structures were relatively simple palisaded timber tower houses situated on mounds. The excavations revealed the structure had been destroyed by fire, probably in 1414, and a significant assemblage of martial artefacts was recovered including pieces of good quality armour, a sword, daggers, battle axes, spearheads, part of a crossbow, arrowheads and crossbow bolts, as well as equestrian equipment (Nadolski, 1985). It is not always possible to determine whether smaller fortified structures or residences with earthworks belonged to the Order or to individual knights. For example, a similar site at Susz has been dated to the end of the thirteenth/start of the fourteenth century, but with no indication as to the identity of its occupants. An unusual example of such a private residence was excavated at Narzym near the Masovian border, where the remains of a stone and brick tower situated on a small, high mound amidst boggy terrain were discovered, with associated timber structures dating to the mid-fourteenth century. The site, linked to the ownership of the de Wildenau family, was modified at the end of the fifteenth century and ceased to function in the first half of the sixteenth

century. The use of such durable materials was not normally permitted for private residences within the Order's state (Marciniak-Kajzer, 2007).

The political role of the Order's castles can also be seen in their relationship with towns. In the Kulmerland, with its dense settlement and integrated trade networks, around 70 per cent of all trade was conducted by those castles located next to towns, although trade between the castles and towns amounted to only just over 25 per cent of all recorded transactions from the latter half of the fourteenth century (Gancewski, 2001, p. 90). This suggests the integrity of the town and castle complex, which seems closely linked through the act of foundation and planning, may have been more diffuse. One of the biggest obstacles to exploring this further is the absence of both town and castle excavations within a combined research programme. For example, whilst the castle at Malbork has seen decades of excavation, the town itself is virtually unknown archaeologically. In contrast at Elbląg, the Old Town is known in extensive detail from sustained excavations, whilst the castle precinct has had very limited investigation. Interesting cases where the relationship between castle and town may be illuminated in more detail will come from Toruń and Gdańsk. In the case of the former, the foundation of the New Town situated the castle in-between both urban centres and was an ideal location for controlling both (Czacharowski, 1983, p. 40).

The Order's castle in Gdańsk, built c.1340 within the remnants of the earlier stronghold, has seen a number of excavations which, along with iconographic sources, have enabled its plan to be reconstructed. The ducal stronghold was re-used and its embankment initially reinforced, but subsequently the Order built a completely new complex. The conventual high castle, with documented chapel, chapter house, refectory and dormitory, was constructed on 4m-deep stone foundations and separated from the surrounding moat by a walled outer ward. A large moat – 24.5m in width – separated the castle precinct of two outer baileys from the town on its northern, eastern and western sides, whilst the Motława formed a natural barrier on the southern side of the complex. Only the riverside wall and a tower on Wartka Street have survived from the Order's castle (Paner, 1998–1999, pp. 100–103). In terms of its location, the castle continued to dominate the town (or rather two towns, see also chapter 5) in the same way as the ducal stronghold had done, but the construction of sets of moats, walls, gatehouses and watch towers created a visible and dramatic sense of segregation. Even when accounting for the role of the castle's outer baileys in trade, the fortified complex exemplifies the state of precarious security following the town's annexation by the Order. Acknowledging the specific historical and topographic context for each foundation, there is an underlying political statement in the dominant positioning of castles in relation to their associated settlements. This relationship was in fact established at the very start of the crusading period in Prussia, where the process of establishing fortifications and colonies was directly controlled by the Teutonic Order. In these early years, the Knights' political authority was also underlined by the production of coinage – an explicit statement of sovereignty.

Money and the economic identity of the Teutonic Order

The Teutonic Order's identity as a religious corporation where property, land and serfs were commonly held by all of its members is clearly outlined in the Order's Rule (3), as is the use of the black cross on a white mantle as a clear visual signifier of membership (11), in turn linked to how the brethren should behave (28). The development of the Order's state heralded a dramatic increase in building activity from c.1250 to 1350, peaking in the second half of the fourteenth century, with 73 per cent of all major buildings (i.e. churches, castles and town halls) being constructed between 1340 and 1450, before declining again as the Order's state was weakened by its wars with Poland and Lithuania (Herrmann, 2007, p. 53). This was made possible by the revenues accumulated by the Order, which were diverse: the tithe of a measure of wheat and rye from each *Hufen* (the division of farmland); the taxes on each *Hufen* paid in coinage; house taxes from towns of six pence per building; market taxes on various trades such as bakers and butchers; milling and brewing taxes; profits from mining, especially salt; amber collection; tolls on lake and river traffic and ferries at Kulm and Thorn; court fines; inheritance taxes; the auctioning of offices; licenses for trapping and fishing; produce from the Order's own estates and the sale of war booty, as well as income from the Order's supporters and lands in the Holy Roman Empire (Urban, 2000, p. 366).

The Teutonic Order began minting its own coinage not long after the first towns were established in Prussia, initially most probably in Thorn (Czacharowski, 1983, p. 41). The function of the Order's monetary system is evident from the rental books of individual commanderies; agricultural produce from rural settlements would be brought to towns where it could be exchanged for money, quickly promoting circulation (Stephan, 2009, p. 323). The earliest coins produced from 1240–1260 were silver and followed regulations set out in the Kulm Law where the highest denomination – the Mark – was sub-divided into 60 schillings or 12 pfennigs (denars). They circulated around the Order's territories for a decade before being replaced by slightly heavier coins. The same system operated on the territory of the Ermland bishop and most likely other episcopal territories, with an agreement of mutual exchange of coinage documented in 1251. However, most episcopal mints appear to have ceased functioning by the early-fourteenth century, perhaps reflecting the incorporation of the cathedral chapters of Kulm, Pomesania and Sambia into the Teutonic Order's political structure (see also chapter 6; Paszkiewicz, 2009, pp. 48–49). Around 1260, the weight and number of coins noticeably decreased, most probably reflecting the volatile events of the Great Prussian Uprising and the Order's military losses. Following this, the standard of coinage improved, especially after the annexation of Pomerania which saw an influx of the Order's coins into the region (*ibid.*, pp. 323–325). In 1309, the mint was not moved from Elbing to Marienburg following the relocation of the Order's headquarters, and control of the mints remained in the hands of

the commanders of Thorn, Elbing and Königsberg. In the mid-fourteenth century, under the direction of Winrich of Kniprode, the earlier bracteates were replaced with thicker, silver coins bearing the arms of the Grand Master and the cross of the Order, within a shield on the schilling and by itself on the quarter (Vossberg, 1843). The use of a larger, thicker sheet of metal from 16mm to 26mm in diameter on the larger coins enabled more decorative elements to be included, as well as an inscription on both sides. The Order also adopted the groat during the reign of Winrych of Kniprode (1352–1382), which had already been in use in neighbouring regions such as Poland and Bohemia and from the 1370s, the *grzywna* (the equivalent of the Mark) in the Kulmerland. In the fifteenth century, the coins of Grand Master Ludwig of Erlichshausen were first minted in Thorn, then Marienburg, perhaps even Mewe and finally in Königsberg until 1460 (Paszkievicz, 2009, p. 331).

The Order kept a strict control over the design and production of its coinage. In the fourteenth century, there are sporadic examples of forgeries of the Order's coins, but no evidence of a sustained, organised underground mint (*ibid.*, p. 138). There is virtually no evidence of the mints themselves. The only known example of a minting stamp, cast in bronze, is dated to the early-fifteenth century (for coins with the motif of the 'Greek cross' type 3) and was housed in the Prussia Museum in Königsberg before the Second World War (*ibid.*, pp. 282–283). The iconography of the coins in use into the fifteenth century was limited, but clearly expressed the identity of the Order and the images were carefully and deliberately chosen. The cross represented the emblem of the Order as a crusading institution and, from the fourteenth century, the most popular coin motif was a cross framed within a shield; the figure of the knight could stand for a representative brother of the Order or perhaps even a military saint; the gate motif, borrowed from the Hamburg *Torpfennige*, is the strongest link with crusading ideology representing the 'Golden Gate' of Jerusalem or, on a more general level, a reference to Mary or Christ (the Virgin had also featured on the Order's seals in the Holy Land (Boas, 2006, p. 205)), and a symbol of lordship; the motif of the crown also represented authority (Paszkievicz, 2009, p. 77–78). In times of crisis, the Virgin was invoked in the most striking examples of coin decoration produced within medieval Prussia. When Grand Masters Heinrich of Plauen and Albert of Brandenburg-Ansbach minted their gold (and in the case of the latter also silver) coins, they included the image of the Madonna of the Apocalypse or the Queen of Heaven: a representation of Mary, the protector of Prussia, fighting evil. These were paid to the mercenaries defending the Order's castles against Polish armies, and may have functioned as effective tools of propaganda (Dygo, 1989, p. 69).

As discussed in chapter 3, coins are regularly used for dating; however, more information can be extracted on the basis of their context. Some hoards have been discovered but stray finds remain largely unpublished; in the Olsztyn region this amounts to over 30 examples (Januszkiewicz & Odoj, 1997, p. 206; Męclewska, 1968). In 1960, a farmer in the village of Gródki (Płońnica, Olsztyn

voivodeship) found the remains of a ceramic vessel containing 160 coins, which originally may have numbered around 200, at a depth of 60cm. The coins dated to the second half of the fourteenth century, spanning the reigns of Winrich of Kniprode (1351–1382) through to Konrad of Jungingen (1393–1407) and were deposited in the final years of the fourteenth century (Januszkiewicz & Odoj, 1997). In 1969, a farmer found a hoard of 130 coins along with fragments of ceramic in a field near Płowce. Traces of thread on some of the coins suggest they had been wrapped in fabric. The coins in the hoard represented all the territories of the Order in Prussia, containing 31 + 49 coins of 11 different variants minted by the Order in Thorn, eight minted in Kulm, 39 in Königsberg and three in Elbing. It is possible the treasure was hidden before the battle at Płowce in 1331; the coins were minted between 1320 and 1330 (Pakulski, 1970). What these coin hoards demonstrate is the level of wealth generated by rural communities in eastern Prussia during the period of colonisation in the fourteenth century, which is also testified by the construction of churches (see also chapter 6). The hoard discovered at Gródki testifies to the wealth of the settlers; already noted in 1328 as Grotko, the colony was granted town rights under the Kulm Law in 1349 and the settlers were able to set up their own church (Januszkiewicz & Odoj, 1997, p. 205). These rural settlements were associated with the development of the landscape and as colonies they were remarkably successful at exploiting the local environment (see also chapter 7). Aside from coin hoards, stray finds have also been found in archaeological features and in graves, especially in north-east Prussia (Paszkiwicz, 2009, p. 113). After the various insurrections following the crusades of the thirteenth century, it is clear that a period of stability and prosperity accompanied by establishment of the Order's state heralded a 'golden age' of material culture that was not subsequently repeated on such a scale in Prussia. This is the essential economic background to understanding the successful unfolding of the Teutonic Order's Prussian state at every level – from the castle to the colonising village. The coins of medieval Prussia, widely disseminated within and beyond the Order's lands, were a continuous reminder of the crusading ideology of the Teutonic Knights, alongside the sovereignty and unity of their state.

The control of money was linked with a complex bureaucracy. The Order's administration, centred on the chancellery in Marienburg, required significant quantities of parchment. Aside from their clear textual value, these documents are also interesting as material culture. Parchment would have been obtained from livestock bred on the Order's estates, and significant quantities have survived in archives and could form the substantial basis for future research into this often neglected yet fundamental aspect of provisioning. A regular supply of wax for sealing these documents was also required; many seals have survived indicating that each official within the Order had their own, with an iconographic unity expressing a clear political ideology. In contrast to its sophisticated bureaucratic machinery, the intellectual achievements of the Teutonic Order in medieval Prussia were relatively limited compared to those of the Church.

Convents contained scriptoria where essential liturgical texts were produced, as well as some form of library to meet the liturgical and theological demands of its community. This information was largely mediated through its educated chaplains, for many members of the Order are known to have been illiterate. From the fourteenth century, the Order's priests were responsible for producing the chronicles that have enabled historians to reconstruct the events of the crusades and later wars. These were intended to expound the Order's crusading ideology and the period was framed by the chronicles of Peter of Dusburg, documenting the events of the Prussian Crusade, and Wigand of Marburg, who wrote on the military activities of the Order between 1311 and 1394 (Sieradzan, 2005, p. 93). There seems to have been a deliberate policy of education and spiritual revival within the Order in the 1330s, with works such as Jeroschin's rendering of Peter's *Chronicle* into German (Fischer, 2010, p. 14), reinforced by the iconographic programmes of conventual castles discussed above. In the last decades of the fourteenth century, these decorative schemes included the promotion of the figure of the Grand Master.

Drawn from the aristocratic class and rising up the ranks of officials, the leaders of the Teutonic Order used their heraldry in a comparable way to their secular counterparts, where individuality was emphasised through a widely understood symbolic visual language. For example, Ulrich of Jungingen's family arms are found decorating the church in Juditten in Sambia (dated c.1393–1396), in the western wing of the castle at Ragnit (c. 1404–1407) as well as in the palace of the Grand Masters in Marienburg, painted during the reign of his brother Konrad in 1403 (Pospieszny, 1991, p. 12). Before his election, Ulrich had held the offices of Voigt of Sambia, from 1404 as Marshal and, in this respect, he was documenting his career within the Order (Trupinda, 2010b). The few extant grave slabs of the Grand Masters also indicate the use of heraldic representation typical for the ruling elite of a medieval European polity. In the last decade of the fourteenth century, the chapter house at Marienburg was decorated with images of past Grand Masters, some of which were uncovered during restoration at the end of the nineteenth century. They emphasised the heritage of the Order's rule in Prussia, as did the paintings in the procurator's residential quarters at Lochstedt castle which, at the end of the fourteenth century, were decorated with figures of the 'nine heroes' which included three models of Christian knightly virtue – King Arthur, Charlemagne and Godfrey of Bouillon (Chodyński, 2003, p. 39). On another wall were knights of the Teutonic Order with banners and arms, and figures of the Grand Commander, Great Marshal, Hospitaller and Quartermaster (Domasłowski, 2010, pp. 107, 112). However, it is important to bear in mind this is a chance survival and many other castles would have contained meaningful decoration that has been completely lost. Lochstedt was after all the residence of a procurator and later the Amber Master, one of the lower officials of the Order. On the other hand, the power of the Grand Master is still most visibly evident within the Order's headquarters in Marienburg.

Marienburg (Malbork): a case study

The castle of Marienburg was built on a morainic upland overlooking the right bank of the River Nogat from the third quarter of the thirteenth century. The complex continued to be extended until the middle of the fifteenth century (Figure 4.8). A settlement developed alongside the castle and was granted town rights in 1286. Although the castle and town were integrated with a circuit of walls in the fourteenth century, the castle dominates any studies of the Marienburg complex. The Old Town, largely destroyed during the Second World War and gradually rebuilt from the 1950s, remains virtually unknown from an archaeological perspective. The castle is unique from the point of view of preservation of primary sources. It contains the largest surviving number of wall paintings and sculpture from the Order's state, as well as the most detailed archive of written sources pertaining to a single castle (Domasłowski, 2010, p. 107; Jóźwiak & Trupinda, 2007). Marienburg is unusual by its very scale; together with the town it enclosed over 25 hectares within its circuit of walls (Haftka, 1999, p. 167). It is significantly bigger than any other castle built by the Teutonic Order; indeed, it is often described as the largest castle in the world. It represents over a century of investment by the Grand Masters and reflects the size and complexity of the household supporting the political centre of the *Ordensstaat*. The physical fabric of the castle is, in itself, worthy of a separate monograph, and the constraints of space only permit a brief sketch of its main structures and fourteenth-century phases.

The early castle

Peter of Dusburg described how the stronghold at Zantir was relocated and renamed as the castle of Marienburg c.1280 (see also chapter 3). Very little is

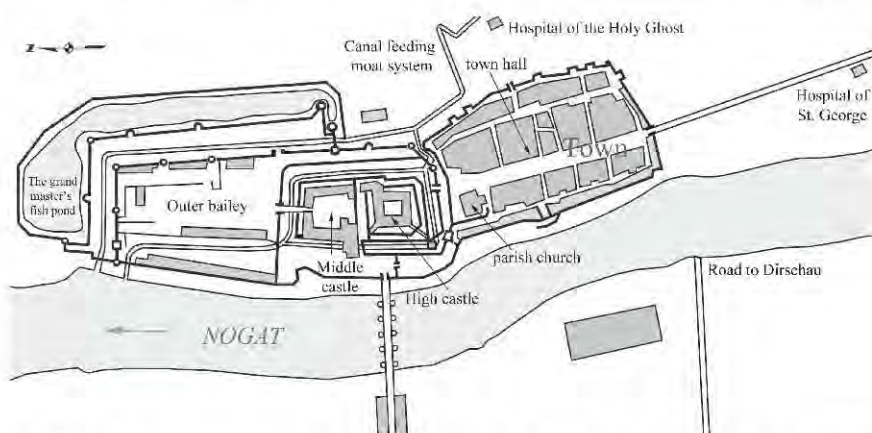


FIGURE 4.8 Plan of the castle and town complex in Marienburg (Malbork) at the end of the fourteenth century (redrawn aft. Biskup *et al.*, 2009)

known about the castle's early form and whether it was initially an earth and timber structure or built immediately from brick (Trupinda, 2004b, p. 29). The first part of the brick castle to be constructed was the northern range, followed by the western range with the space enclosed by the end of the thirteenth century (Hafka, 1999, p. 167). As one of the first castles to be built using the template for laying out convent buildings, the structure must have been planned with the integration of spaces in mind reflecting the monastic lifestyle of the community, one almost certainly tried and tested at nearby Elbing. The courtyard of the high castle was reshaped in the 1330s with the construction of the eastern main tower and the residential wing and, whilst the building of cellars truncated earlier levels, geophysical surveys have indicated the central parts of the courtyard appear to be undisturbed and may preserve earlier structures at a depth of 3–4m. In 2010 and 2011, two cores were taken from the northern and central part of the courtyard down to a depth of 4m. The first, closer to the wall of the northern wing in an area which had seen earlier rescue excavation, was capped with a layer of rubble and below this revealed banded deposits linked to construction work (with fragments of brick) and levelling with sand. The second, more centrally located core revealed an undisturbed organic layer which included a fragment of greyware and thinner dark horizons, interspersed with bands of sand. Unfortunately, not enough organic material was recovered from the cores for radiocarbon dating which has prevented a chronological framework from being developed for the stratified layers, although future investigation may shed more light on this early phase of the castle still preserved under the courtyard.

The dating of the surviving architectural elements of the high castle is complicated, but crucial to understanding both the development of the Order as a political power in Prussia, and the ideology associated with this envisaged role. The origins of the first castle at Marienburg have been debated, where the choice to make this the *domus principalis* (headquarters) of the Order (the document confirming this, bearing the seal of the commander of Elbing dates to 1 January 1310) resulted from an internal dispute, or from its proximity to the newly acquired territories in Pomerania (Józwiak, 2001b, p. 417). In fact, there is some debate over whether the castle was planned as the centre of the Order's territories in Prussia from the onset (Pollakówna, 1997, p. 424), a controversy that studies of material culture have contributed to. One of the main debates concerning the dating of the high castle has focused on the church of the Blessed Virgin Mary in the northern range. Its southern entrance, the 'Golden Gate' (first documented with this name from the 1320s; see also above) was initially dated to 1280 (Jakubowska, 1989), whilst a subsequent analysis of written, artistic and architectural sources indicated it was more likely to have been built a few decades later (Dygo, 1995). The bricks from the vaulting of this early structure are large, measuring 26 × 36cm and this size is regularly used to identify the earliest fabric of the castle. Whilst it is possible to interpret the portal's iconography in the context of crusading ideology, it has also been

seen as representing the Order as the idealistic ruler, underlining the role of Marienburg as the political centre of Prussia. The portal appears to have emulated an earlier one at the castle in Elbing, conceived as the headquarters of the Order in Prussia in the latter half of the thirteenth century. This may suggest the gate was constructed even later, after 1309 (Jóźwiak, 2001b, p. 416), and sought to replicate an existing symbol of centralised power. Limestone column capitals with various designs including monstrous hybrids have also been dated to this initial phase: the last quarter of the thirteenth century and start of the fourteenth century (Jurkowlanec, 1989). The rest of the early castle's interior composition is speculative but, aside from the chapel, a chapter house, refectory, dormitory, infirmary, kitchen and commander's quarters are mentioned (see Haftka 1999, p. 167; Pospieszna's (2002, pp. 11–12, Figures I & II) reconstructions of the upper and lower floors and Jóźwiak & Trupinda's (2007) critical discussion). In any event, the move from Venice to Marienburg initiated by Grand Master Siegfried of Feuchtwangen placed the headquarters of the Order in a central location between Elbing and annexed Gdańsk, whilst the northern boundaries of the commandery were extended to the Baltic coast.

The rebuilding of the high castle

The first half of the fourteenth century saw the rebuilding of the high castle and the expansion of the complex northwards, invariably reflecting the constraints of the topography and access to the river (Haftka, 1999, p. 167). The southern and eastern ranges were built at this time, along with corner towers and cloister arcades to create the typical conventual layout, accompanied by the designation of space for storage, a new dormitory and refectory. A substantial *Dansker* tower was attached to the south-western corner of the high castle by a 64m-long arcaded walkway, whilst the extension of the north range saw the rebuilding of the bell tower which now also fulfilled the role of watch tower (Haftka, 1999, p. 168). The church of the Blessed Virgin was extended eastwards between 1331 and 1344, at which time it must have been redecorated in the contemporary gothic style of the early-fourteenth century found in the other sacral spaces of the castle, exemplified by detailed foliage applied to arcading, vaulting, portals and columns. It was also decorated with figures of Christ, the Virgin and various saints, some of which have survived, even with traces of colour. Of the roof bosses that have survived the most striking is Mary and the Child holding an apple in her right hand and representing the 'new Eve': a symbol of salvation (Pospieszny, 2010c, p. 36). Much of the decoration of the church, such as the roof boss, is reminiscent of the sculptures from the church of St Elizabeth at Marburg, where contacts with the Order appear to have been strong. At the same time as the church was being extended, the chapel of St Anne was constructed directly underneath and completed by 1341, coinciding with the burial of Grand Master Dietrich of Altenburg. The crypt, shaped as a brick-lined single shaft cut 6m into the ground, is now empty save for three

decorated slabs and, as the documented burial place of 11 Grand Masters, it is unique in the Order's state. The other burial places for Grand Masters were in the cathedrals at Marienwerder (see also chapter 6), Kulmsee and Königsberg. Brothers were often buried in the local parish church or hospital chapels, such as the hospital of the Holy Spirit in Thorn, whilst the question of cemeteries in castle grounds remains unclear; in Marienburg burials are noted in the outer ward on the eastern side of the high castle (Jurkowlanec, 2010, pp. 213–214).

The chapter house was rebuilt in 1320 at the same time as a new decorative arcade in the western wall of the church. It was decorated with wall paintings including the gallery of Grand Masters accompanied by inscriptions datable to the very end of the fourteenth century; the whole representing the dynasty of exemplary leaders of the Order. In all probability this was a highly decorated space, although only eight corbels were documented at the time of restoration, including a human head crowned with foliage, a bear's head and a lion reviving its cubs – the latter a bestiary symbol for resurrection (Trupinda, 2004b). Marienburg was the location for as many as five different chapters; the weekly meeting of the convent which took place in the high castle, the chapter of the main house, the provincial chapter, the general chapter which, after 1291, was supposed to meet every six years and finally those gatherings to elect a new Grand Master (Jóźwiak & Trupinda, 2010, p. 33). An integrated heating system was installed both here and in the middle castle, consisting of hypocausts which also warmed the refectories but not, confirming to the Order's practices, the dormitories (Pospieszna, 2002). A three-storey tower was constructed on the eastern corner of the northern wing, near the chapel of St Anne, heated by a hypocaust in the cellar, the remains of which were moved during nineteenth-century restorations. Today, the earliest surviving hypocaust is located underneath the Great Refectory in the middle castle.

The middle castle

The relocation of the headquarters of the Order to Marienburg prompted an ambitious programme of extending the castle to meet the requirements of the convent's expanded functions and household. The earliest additions were placed on the relatively flat, swampy plateau to the north. A moat separated this complex from the high castle, its embankment reinforced with timber. The engineering involved in the layout of the middle castle (so-called from the early modern period) was complex, for it involved not only the preparation of a level surface evident from cores taken during maintenance work in recent decades, but the stabilisation of wall foundations in the waterlogged soil with significant quantities of posts made from pine, which extended to the north-western side of the moat dug around the middle castle (Figure 4.9). On top of this a stone foundation was firstly set in clay and then laid with mortar, supporting the brick buildings above. The use of pine, a material that is prone to more rapid decomposition following exposure to air, had already created problems for the buildings in the

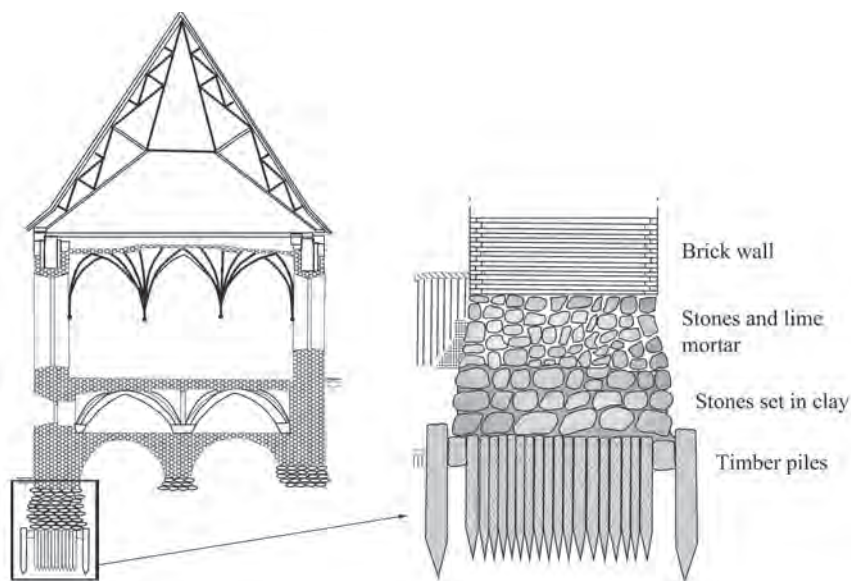


FIGURE 4.9 The timber supports and foundations under the Great Refectory of the middle castle at Malbork (Marienburg), profile W–E (redrawn aft. A. J. Pawłowski in Mierzwiński, 2010, pp.169, 171)

fifteenth and sixteenth centuries relating to the drop in the water table, most likely as a result of the use of all four castle wells. With the subsequent drop in the water table in the mid-nineteenth and early-twentieth centuries following the regulation of the River Nogat (where the level dropped by 1.8m), these timber foundations began to rapidly weaken, resulting in the subsidence of the western side of the middle castle by the 1980s. This, in turn, led to significant cracks in the north/south facing walls that were only stabilised in the 1990s with braces and metal rods driven over 10m into the bedrock (Mierzwiński, 2010).

The area of the middle castle had functioned as an outer bailey from c.1280, with its perimeter defined by a brick wall. Here three ranges were constructed flanking the western, eastern and northern sides of the precinct. The first Grand Master's residence was built in the south-western corner in the second quarter of the fourteenth century; its original quadrangular plan is preserved in the layout of its cellars. Attached to it was a chapel dedicated to St Catherine which extended east into the courtyard. Whilst the position of the Grand Master became stronger in the 1350s, the building was not significantly altered until the reign of Konrad Zöllner of Rothenstein (1382–1390). At this point, the Grand Master's palace was expanded and developed into a four-storey residential tower, its corners crowned with machicolated and crenellated turrets (Figure 4.10). Two refectories were installed on the first floor, roofed with radial vaults supported on centrally placed pillars, imitating the architecture of



(a)



(b)

FIGURE 4.10 The Grand Master's palace at Malbork (Marienburg) (a), painting of the palace by D. Quaglio in 1834 (b) (aft. Chodyński, 1989, pl. 8)

monastic chapter houses (and those of the Order's convents) with the vaulting reminiscent of Bohemian and English contemporary styles. These were decorated with painted foliage and heraldic emblems and, in the smaller, 'Master's Refectory' (later the 'Winter Refectory'), a series of portraits of Grand Masters was added between 1402 and 1407, ending with Konrad of Jungingen. This can be linked with the gallery in the chapter house suggesting a pointed emphasis on the office of Grand Master as a paragon of the Order's political and military virtues (Trupinda, 2004b, p. 51). The doors and many of the architectural details of the palace were made from Gotlandic limestone, an expensive import. Heating systems were added in the 1390s (Pospieszna, 2002, p. 18) and, in 1398/1399, the building was expanded to the east to house the treasurer's office and its courtyard-facing side was decorated with a closed arcade. The receipt book of the Order lists payments from 1397–1407 for decorating the interior with wall paintings, some of which have survived; work on the residence continues to be documented until 1414 (Pospieszny, 1991).

With the construction of the Grand Master's residence, the southern part of the western range was rebuilt, integrating both spaces which would become connected by a small staircase (Jesionowski, 2010). The earlier five-storey range, which included an adjoining chapel, had been reconstructed from 1332–1337 and came to house the Great Refectory, kitchen and adjoining rooms and a series of cellars. Its superstructure did not subsequently change and conservation works from the nineteenth century, completed in the last few years, have had minimal impact. The Great Refectory was roofed with star vaulting, plastered and decorated with wall paintings, its windows framed with stone tracery (*ibid.*). It was a feasting hall for dignitaries of the Order and their guests, a place for audiences and announcements, and also the location for the election of the Grand Masters. It was the largest space available for such meetings

which, in 1391 for example, included 250 brothers. Such gatherings demanded provisioning not only from the commandery but from other convents as well (Jóźwiak & Trupinda, 2010). The interior decoration expressed the political and crusading ideology of the Order with wall paintings of the coronation of Mary, and a four-layered frieze of mounted knights carrying heraldic banners and supported by foot soldiers, perhaps representing the events of the Prussian Crusade (Raczkowska & Raczkowski, 2010, p. 46). Two levels of cellars underneath were also vaulted with star and cross designs; one of the cellars on the lowest level was linked to the courtyard by a staircase which was still visible in the early-nineteenth century. Part of the vaulting in the lowest two levels of the range was formed from bricks taken from the earlier buildings of the high castle, which was being modified and expanded at this time (see above). The kitchen contained a large fireplace forming part of the structure of the north wall and a well shaft which reached the water table below the level of the cellars. To the north-west of the range was a room belonging to the 'great kitchen master', also decorated with wall paintings datable to c.1360–1370, and linked to the proliferation of Bohemian-influenced painting in medieval Prussia. The painted crucifixion in this private space reflects a unique surviving example of the needs of personal devotion within the Order's sites (ibid., pp. 78–79). A series of small buildings were constructed east of the Great Refectory functioning as bath houses, a well and a store for wood for fuel which was heated by three underground hypocausts to ensure it remained dry.

The eastern range of the middle castle contained vaulted and decorated rooms for the Grand Commander and the Order's guests (Pospieszna, 2002, pp. 20–21). A refectory roofed with vaulting supported on a single, central stone pillar was set up in the north-east corner and linked to the guest quarters and the chapel of St Bartholomew. In the north range, an infirmary complex (including a refectory and chapel) as well as bathing halls were constructed. Recent excavations under the eastern wing ahead of the construction of a new gallery uncovered cellars, earlier brick wall foundations and the remains of an animal burrow leading to the eastern moat. Numerous fragments of pottery, stove tiles, bones of domestic mammals and poultry, as well as a set of bone dice, were recovered (Sawicki & Jaszczyński, pers. comm.). From a military perspective, the eastern, southern and northern sides of the castle complex were the most fortified, containing a number of gates, moat systems, polygonal and quadrilateral towers and double walls. The construction of the western range breached the earlier wall of the outer bailey, but remained separated from the outer western ward by a moat, whilst the riverside of the expanded precinct was fortified with a wall and gatehouse complex, linked to a bridge that spanned the Nogat. This was reinforced in the fifteenth century with large, semi-circular towers and gun platforms as a response to the increasing use of artillery (see also chapter 8). The riverside section only contained walls reinforcing the bank with gatehouses but no towers, although the bridgehead on the left bank of the Nogat was secured with a barbican (Domańska, 1977).

The outer bailey

The outer bailey (or lower castle as it is often referred to) began to be constructed in the middle decades of the fourteenth century following the replacement of the earlier ward by the middle castle. Since 1997, this area has seen the most intensive archaeological investigation in the castle complex, led by Maria Dąbrowska and aimed at identifying its various functional zones in both the medieval and post-medieval periods (Dąbrowska, 2007). During the construction of the high and middle castle, the outer bailey was used for storing building materials, particularly bricks, as suggested by remains of discrete sand deposits, caches of clay as well as fragmentary and loose, whole bricks, which in the case of one example was similar in size to the bricks in the high castle dated traditionally to c.1280. This area continued to function in this way until the first half of the fourteenth century when a series of service buildings was set up and the precinct enclosed with a wall, moat and gatehouses.

Some of these buildings remain extant today, such as the former arsenal housed within the *karwan* set up against the eastern wall, and the western range that included the chapel of St Catherine. Excavations between 1998 and 2004 (and subsequently) have revealed the presence of free-standing buildings within the precinct, indicating this was not simply an open space in the fourteenth century. Thirty-seven trenches revealed the foundations of three earlier buildings and over 24,500 finds. These consisted of a complex of workshops with an unroofed courtyard; a casting workshop for making items such as cannons and bells, and a residence interpreted as belonging to a crossbow bolt manufacturer and treasurer (*ibid.*). In 2008, excavations in the central part of the northernmost end of the outer bailey uncovered substantial brick foundations for what were presumed to be stores constructed by the Order, which were subsequently completely dismantled and the surface levelled (Sawicki, *pers. comm.*). There are a number of buildings which have not been accounted for archaeologically, such as lodgings for guests referred to in the written sources or the quarters of the 'Garden Master'. The outer bailey had its own chapel dedicated to St Catherine to serve the needs of the castle's extended household. The tower of the chapel also served as a watch tower and was integrated with a gatehouse complex, consisting of a courtyard enclosed by four walls with the western opening to a gate, and the moat separating the middle castle from the outer bailey ran under this gatehouse. The outer bailey buildings were heated by ceramic stoves, the tiles of which have been regularly found during excavations (Pospieszna, 2002, p. 27).

The western outer wall of the castle contained two large towers flanking a smaller tower and two gates. These opened up onto a bridge with a length of over 100m, which may have had sections that could be raised to allow river traffic to pass. On the other side of the Nogat, constructed in the fifteenth century, two large towers with octagonal walls enclosed another courtyard with two gates in the eastern and western wall, in the manner of a barbican. This

structure was prepared for artillery use. The castle was connected to the western bank of the Nogat by a bridge, the remains of which were uncovered in 1998, preserved in the submerged anaerobic conditions. In 1963, excavations in the southern moat uncovered fragments of a bridge, along with parts of a brick wall separating the moat into two parts. Further investigation revealed that this part of the moat was 3m higher than the northern stretch (Mierzwiński, 2010, pp. 205–206). Beyond the northern walls, there were a series of fish ponds which have left substantial traces in the landscape, although when cores were taken from these depressions they revealed alluvial deposits which were difficult to date; the outer bailey had been constructed on the floodplain of the Nogat.

The town of Marienburg

A settlement developed south of the convent and was surrounded by a curtain wall that linked up to the outer wall of the castle. It was planned on a grid with a central market street, as in Elbing and, to the north, stood the parish church of St John, in the centre the town hall. These are the only two intact medieval buildings in the Old Town of Malbork that have survived to the present day; beyond the town walls there is also a hospital on the road heading south to Sztum and a brick building housing a water mill situated on the Młynówka canal, parts of which can be dated to the Late Medieval Period. Of the town walls, only the western stretch along the length of the river has survived, although much of this has been restored and more awaits stabilisation and conservation. The only surviving gatehouse stands on the southern edge of the Old Town, detached from the fragments of the south-east town wall which survive today (Figure 4.11). Very little of the town itself has survived; it was supposedly destroyed in 1410 to deny advancing Polish troops cover, then again in the seventeenth century during the Swedish Invasion and finally towards the end of the Second World War, when the Red Army bombed the town and eastern side of the castle. Rebuilding took place with little consideration of the archaeology. It is likely that a number of late-medieval cellars survive under the modern blocks in the former Old Town, but archaeologists are unlikely to have access to these in the near future (Sawicki, pers. comm). At its heyday in the second half of the fourteenth century, the unified town and castle would have been a visually stunning sight, on a scale far larger than any other commandery centre in Prussia, although Danzig, Königsberg and Thorn with their developed castle complex and multiple urban districts would have also been impressive. A sense of this is captured by pre-war photographs and postcards of the Old Town. In the flat expanse of the Vistula fenlands, red-brick Marienburg would have been visible for miles around, and still is from the north-west. Those approaching the town through its southern gate would have been presented with a broad street leading up to the castle in the manner of a boulevard. This term and its connotations are of course anachronistic, but the internal plan of the town may have been deliberately aimed at emphasising



(a)



(b)



(c)

FIGURE 4.11 The Old Town of Marienburg before the war (a), north facing view of the town after it was destroyed in 1945 (b) (source: <http://www.marienburg.pl>), and south facing view of the rebuilt town of Marienburg in 2011 (c), with the medieval parish church of St John the Baptist in the foreground

the castle (discussed in more detail in chapter 5). Today, the former unity of Marienburg can best be observed from the main tower of the high castle, where the Old Town with its surviving medieval buildings and gate can be viewed in their entirety. Whether future archaeological investigation will shed new light on the development and character of the medieval town – and its relationship with the castle – remains to be seen, although written sources suggest the town was predominantly involved in trade and manufacturing.

The commandery of Marienburg

The convent administered a landscape that stretched from the Baltic coast to the southern edge of the Sztum Forest, from the border of Pomerania to the territories of Elbing and Christburg in the east. Archaeologically, this macro-region has been studied in detail by Mieczysław Haftka (1987), who collated information on the early- and late-medieval settlement patterns on the basis of

archaeological sites and finds, as well as later written sources. The impact of the crusades resulted in significant changes. Zantir was located on the western side of the Sztum Forest (see also chapter 3) and continued to function at a reduced scale in the fourteenth century. On the eastern side of the forest,² an irregular-sided castle was constructed from 1326–1335. This was supposedly built on the site of a Prussian stronghold which had been stormed by the Order's army in 1236, with the site potentially re-used as a strategic fortification into the fourteenth century, although this has not been confirmed archaeologically. The site was situated on an island which was extended to split the associated lake in half, with the water level lowered by the construction of a 10km canal feeding Lake Dąbrówka. This, in turn, was linked to another canal supplying water to the moats of Marienburg (see also chapter 7). The outer bailey, which took up most of this artificial island, was replaced by a planned town in 1416 (Haftka, 1999, p. 305). By the end of the fourteenth century, Stuhm castle was functioning as a *Vorwerk* and being used as a summer residence for the Grand Masters in the manner of a hunting lodge; a park containing wild animals is documented in close proximity and written sources indicate the forest had a diverse range of wild species. This was the largest stretch of woodland in the commandery and a *Vorwerk* was situated on its western edge at Benowo: a self-contained complex which included a residential building, chapel and service buildings, with no evidence of fortifications or moats. This is one of 20 *Vorwerks* documented in the commandery by the end of the fourteenth century (see also chapter 7) situated around the fringes of woodland and within the fenlands. They supplied the convent with woodland, arable and wetland resources.

Whilst the castle towns of Marienburg and Dirschau were situated on uplands overlooking the floodplain between the Nogat and Vistula, the Delta region saw extensive colonisation in the fourteenth and fifteenth centuries. These villages are poorly known archaeologically; only the red brick churches have survived from this period of settlement (see also chapter 6). In some cases, it is clear these were founded on islets of higher ground that had previously seen settlement, as with the town of Neuteich (Nowy Staw) north-west of Marienburg. The Order founded a town adjacent to this earlier Pomeranian village, which became an important centre for cattle and sheep breeding in the commandery. Three kilometres south of the town at Laski was a voigt's complex focusing on, amongst other things, horse breeding. The town's wealth is attested in the early-fifteenth century by the significant investment in its largest church (St Matthew's), a town hall and a hospital and chapel dedicated to St George. The character of the Marienburg commandery was therefore comparable to the organisation of other districts in the *Ordensstaat*, reflected in part by its characteristic environments – wetland and woodland – and in part by the systematic and strategic process of colonisation and land improvement initiated by the Teutonic Order. At the same time the castle complex of the convent was unusually large, reflecting its role as the political centre of the Order's state.

Frontier castles: *Reisen*, colonisation and resource exploitation

The Order's Prussian state had three borders in the fourteenth century: the largely stable southern frontier with the Kingdom of Poland, the secure western border with the Holy Roman Empire and the more diffuse 'Great Wilderness' separating eastern Prussia from Lithuania. The character of each border determined the types of castles that were constructed, their function and the associated pattern of settlement and landscape use. The fluctuating boundaries of the Order's state were marked in various ways. In most parts, natural features are documented as specific markers, most often smaller streams and rivers (see also chapter 7) but, in the east, no attempt was made to demarcate the boundary between the Order's state and Lithuania until the late-fourteenth century, focusing on areas free from raiding where the exploitation of the extensive woodland resources could be developed. The Order's wars targeting south-western Lithuania (Užnemunė) in the late-thirteenth century depopulated this region which would not see re-colonisation until the sixteenth century. As mentioned in chapter 3, the abandonment of hillforts in western Lithuania can be associated with the later stages of the Prussian Crusade and the start of the *Reisen*, and the main borderland with the Order's state focused on the length of the lower Nemunas valley. To the south, political relations with Poland remained volatile throughout the fourteenth century. The Kulmerland remained firmly in the hands of the Order until 1466, whilst neighbouring Lubavia, Dobrin Land and Michelauer Land remained contested with Poland throughout the Middle Ages. To the west, the Order's annexed territory of Pomerania bordered with the Margravate of Brandenburg and, in 1402, the Knights acquired the Neumark from Brandenburg for a short period of time. The castles in the fourteenth-century Pomeranian borderland were sporadically located, the westernmost being the procurator's residence at Baldenburg (Biały Bór), within the commandery of Schlochau. Only the buried walls and part of the moat of this castle are visible today following its destruction in 1466 and subsequent dismantling, with no documented archaeological investigation conducted here to date. The frontiers can be sub-divided into two general types: those bordering with pagan Lithuanian territory and those bordering and encompassing Christian, Slavic lands. To what extent did the Order implement a unified approach to securing and colonising these frontiers?

Colonising the 'Great Wilderness'

In eastern Prussia, the inclusion and sub-division of the 'Great Wilderness' within the commanderies of Balga, Brandenburg and Königsberg was reflected by the construction of castles. In North Galindia, the first Teutonic Order settlements are represented by the castles at Rudwangen (Rydwągi), Bosemb (Boże) and Weißenburg (Wyszembork) constructed under the auspices of Grand Master Winrich of Kniprode in the late 1360s and 1370s. In 1371, the vicinity around

the settlement of Seehesten was devastated by a Lithuanian raid; the town itself was formally established in 1401 by Ulrich of Jungingen – at that time commander of Balga and Voigt of Natangia (Auch & Nowakiewicz, 2009, p. 489). The Bartian stronghold at Bezławki was replaced by the Order's castle of Bäslack, which may have been constructed already from the third quarter of the fourteenth century. The castle functioned as the centre of a *Kammerämter*, associated with the procuratorship of nearby Rastenburg (Rastembork). Excavations at the site revealed the Order's castle adapted the earlier stronghold, with no traces of a siege evident, and developed a significant hinterland associated with the village of Bayselawken, established in 1371 (Nowakiewicz & Rudnicki, 2002). Dendrochronological dating of material from excavations at the Order's site in Sztynort (Steinort) indicated it was constructed c.1315 (Łapo, 2001) and it is possible the other sites at Angerburg (Węgorbork), documented from 1335 and Johannisburg (Pisz) from 1346 had earlier foundations (Białyński, 2002, p. 13). The castles of Angerburg and Lötzen formed a defensive line across the eastern frontier (Długokęcki, 2009b, p. 208). At the southern end of this line the procurator's castle at Eckersberg (Okartowo), situated on the route between two lakes, is documented c.1340 but was destroyed in 1378 by a Lithuanian army. In the mid-nineteenth century, a church was built on the former site of the castle, when sections of the wall were still visible, and fragments of greyware are regularly brought up by molehills within the graveyard. A nearby mound may be the remains of the documented *Dansker* tower, although the procurator's complex and its immediate hinterland remain virtually unknown.

The main castles defining this front line may have been supported by a series of watch towers. The first such site at Piękna Góra just outside Giżycko is represented by a small earthen mound. Between 2003 and 2005, the area at the base of the mound at the edge of the lake was being developed into a marina, and late medieval ceramic fragments along with a ceramic fishing weight were discovered (Karczewski, pers. comm.). A further watch tower may have been located within the earlier Prussian stronghold at Jeziorko (see also chapter 2), Wyszembork, potentially at Laski-Pniewo and finally at the mound at Orło, which measures 10 × 12m (Antoniewicz, 1950a, pp. 60–64). Excavations have yet to verify this hypothesis but, given that early-medieval ceramics were found on the surface of nearby fields at Orło, it is also possible this earthwork was associated with the earlier Prussian complex at Jeziorko (Mirkowska & Miałdun, 2002, p. 333). The use of watch towers in eastern Prussia is documented, and some of the many earthworks scattered around Masuria may, following archaeological investigation, be confirmed as serving such a function, providing they can be securely dated. In the absence of written sources archaeology potentially offers the most detailed insight into how these sites were maintained and the character of life on the front line.

The administrative structure here was late in developing and accompanying settlement was an equally slow, protracted process. There is a general sense of insecurity, especially from the mid-fourteenth century. Some settlements were

established only to vanish following Lithuanian incursions, as in the case of the region around Angerburg, where the nodal point for colonisation – the Order's castle – was destroyed by Lithuanians in 1366 and would not be rebuilt until over three decades later and 2km away from the original site. Nearby, the castle at Goye noted in 1384 is no longer mentioned in fifteenth-century sources (Białyński, 2002, pp. 167–168). Before the mid-fifteenth century, most settlement was focused in the region of Johannisburg. The procurator's castle here, located on the edge of Lake Roś and close to the Masovian border, saw major confrontations with the Lithuanians in the 1360s and, at one point, the castle was besieged and the surviving garrison enslaved (*ibid.*, p. 21). The castle was rebuilt and, in 1367, the settlement was granted fishing, hunting and woodland bee-keeping rights, suggesting a distinct sylvan character to the organisation of resource exploitation around the Order's centre. In 1392, the castle hosted the Order's guests during one of the *Reisen* led by the Great Marshal Engelhardt Rabege (*ibid.*, p. 22). However, the situation remained unstable and the process of colonisation would not begin until 1422. Just north of Lyck was the castle at Straduny on the south-eastern edge of Lake Łaśmiady, where colonisation would not begin here until the 1470s but would become extremely intensive in the sixteenth century (*ibid.*, p. 112). By the late-fourteenth century, the woods in southern Sudovia and much of Galindia were regarded as neutral zones where military forces from either side were forbidden to kill inhabitants or take them as captives (*ibid.*, p. 9). This border was of course provisional and arguments over the specific delineation would continue into the early decades of the fifteenth century (see also chapter 8). In the south-east parallel with the River Skroda, the border was marked with heaps of stones surrounded by ditches, within which were inserted large oak posts as documented in 1437 (*ibid.*, pp. 8–9).

To the north-east, within the borderland of the Nemunas and south-western Lithuania, settlement was even more precarious. The castle of Georgenburg, surviving as earthworks broadly datable to the fourteenth century at Kalnėnai in Jurbarkas, was destroyed by the Lithuanians in 1384 only to be rebuilt a few years later and finally burned again in 1403. Hillforts such as at Seredžius (site 1) were besieged and rebuilt multiple times into the fifteenth century. The northernmost frontier with Lithuania and Samogitia was administered from the convent at Memel (Klaipėda), situated on a fortified island and linked to the town by a single bridge. The development of the town was precarious as a result of its frontier location, and it suffered destructive incursions every decade or so. The town was established in 1256 with its essential infrastructure, including a mill. The urban layout is relatively poorly known from the thirteenth to fifteenth century as there are hardly any traces of medieval domestic buildings; most excavations have uncovered post-medieval structures. However, the local building tradition recorded during excavations of the nearby coastal settlement at Palanga (tenth to fourteenth century) appears to have been adopted at Memel (Žulkus, 2001). The town was under-developed compared to urban centres in the heartland; there is, for example, no clear evidence of a town hall before the end of the sixteenth

century. Cobble stone pavements have been found; the oldest timber pavement dating to 1374 was discovered at a depth of 2m; in the Old Town deposits have been noted as reaching 4.5m. In the fourteenth century, the town was linked to its hinterland by three bridges which have been identified archaeologically (Žulkus, 2002b, 2004). Even after the cessation of hostilities with the Order's state, the town would not flourish until the seventeenth and eighteenth centuries. As a result of its precarious frontier location, Memel was unable to become self-sufficient and had to import its major foodstuffs from across every border; in the sixteenth century, for example, it depended on beef from neighbouring Samogitia (Rowell, 1999, p. 188; see also chapter 7).

Colonising Slavic borderlands

With the annexation of Pomerania, the Order incorporated a Christian region into its state, a process driven by *Realpolitik* rather than crusading ideology. Key issues in the characterisation of the *Ordensstaat* include the extent to which the Order's sites follow trends established in Prussia, and whether a 'military order ideology' or simply a 'military ideology' is evident in the design of its castles. With the annexation of Gdańsk, the fenlands between the town and the Vistula Delta saw an intensification of colonisation. With the ensuing war with Poland and the unstable political situation into the mid-fourteenth century, this process was relatively slow. The region was already densely settled and with a potentially hostile population, security concerns are evident in the character of the administrative centres built by the Order. One of the best preserved examples is located at Grabiny (Herrengrebin), where the Order constructed a manorial complex which included a central brick building with a residential wing and chapel, service buildings and two separate corner towers on the southern side of the precinct. The whole complex was encircled by a wall, embankment and moat. Excavations revealed the site had been completely levelled before construction and foundations sitting on a bed of clay consisted of large boulders interspersed with smaller field stones and brick fragments. The remains of the south-eastern tower consisted of 39 brick rows providing a substantial thickness of 2.75m with gaps for timber beams every 11–12 rows. A quantity of greyware fragments, dating from the first quarter to the mid-fifteenth century, corresponded to the period of occupation between the documented completion of the complex and its destruction (1409–1454/1459). Animal bones and some iron objects were recovered, and the remains of a timber structure may have been a former well. This substantial defensible complex appears to have partly functioned as a military base for the Order in the fenlands (Kochanowski, 1998–1999).

At Gródek (Groddeck) by the River Wda, 25km west of Grudziądz, stand the remains of the Teutonic Order's castle. Traditionally, this has been seen as the location of an early-medieval Pomeranian stronghold, but this cannot be confirmed by either written or archaeological data. Many excavations of the Order's sites in Pomerania have been led by a deliberate agenda of locating earlier

Slavic occupation, with varying degrees of success (*ibid.*). In the case of Gródek, the castle was strategically located on the road from Kuyavia to Pomerania. Archaeologically, the chronological resolution of the site is relatively poor and the castle can only broadly be dated to the first half of the fourteenth century. In the written sources it functioned as a manor and would not normally have defensive features; however, in this case it was fortified, perhaps suggestive of a military administrative function or the residence of a lesser official of the Order. In 1461, it was taken by the Polish army and left derelict (Jóźwiak, 2005). The site was situated within the south-western commandery of Schwetz, where five manors are documented. Here as in other areas, the Order's *Vonwerks* were set up close to castles and sources of water; some were placed nearby woods and on major communication routes. The convent at Schwetz (Świecie) was built on a former Pomeranian stronghold, stormed by the Order's army in 1309. Excavations at the site in 1959 and 1969 uncovered early- and late-medieval ceramics, as well as a schilling minted by the Order in the second quarter of the fifteenth century. The commandery of Schwetz would not be established until 1317 and the Order made use of the existing stronghold until the construction of the castle began almost two decades later. The convent was situated on a mound on the left bank of the Vistula and the nearby River Wda was redirected to flow around the northern side of the castle, with its former channel separating the complex from the town. The high castle – a typical conventual design with an enlarged tower in the north-western corner – was also surrounded by a moat separating it from its outer bailey. Castle construction was accompanied by town foundation and a new intensity in colonising an already settled region. Pomerania had already experienced significant environmental change in the Early Medieval Period (see also chapter 7) and noticeable changes to the landscape took place again following the installation of the Order's rule. In the thirteenth century, an embankment had been constructed to protect the settled area stretching from Dirschau almost as far as the coast and, in the fourteenth century, the land between this embankment and the Vistula, and between the River Motława and the uplands to the west, was settled under the Order's initiative. In the mid-fourteenth century, some settlements vanished completely and their lands were reallocated. This contraction can be linked to the fluctuating hydrological situation in the fenlands, resulting in the rise of ground water levels (Długokęcki, 2003, p. 56).

In the south-west of the Order's state, the continuing construction of strongholds, castles and settlements in the Kulmerland has been mapped comprehensively by Dariusz Poliński (2003), associated with an increased density in population and the reflexive management of military and economic resources, as well as meeting the Order's spiritual needs. In the adjacent territory of the Dobrin Land originally granted to the military order sponsored by Konrad of Masovia which was quickly absorbed into the Teutonic Order (see also chapter 1), major towns were founded in the fourteenth and early-fifteenth centuries. Having suffered earlier Prussian incursions before the crusades, the territory was only in the hands of the Order intermittently and remained a

Polish-held frontier throughout the Middle Ages. The attack of the Order's armies on the town of Rypin in 1329 prompted a relocation of the centre to a more defensive setting. The Order were able to capture the town on a number of occasions along with others such as Lipno, and these would return under Polish control at various points in the fifteenth century. The main border between the Order's state and the Dobrin Land was controlled by the castle at Gollub, one of the best understood from the perspective of archaeology and architectural studies. Documented as a timber and earth *castrum* at the end of the thirteenth century with this chronology verified archaeologically (Poliński, 2003, pp. 209–210), the structure was rebuilt in 1300–1330 as a quadrangular brick castle with two ranges, with a subsequent square *donjon* with octagonal upper levels added in the north-western corner, and two additional ranges to convert the complex into a full conventual castle (Haftka, 1999, p. 113). The castle was surrounded by a walled outer ward and served by at least one walled outer bailey (for a detailed *resumé* of the archaeology of this site see Poliński, 2003, pp. 227–229). When the Dobrin Land came again into the Order's possession in 1392, a new voigtship directly subservient to the Grand Master was established at Bobrowniki on the northern bank of the Vistula, where the earlier Polish stronghold was quickly replaced by an enclosed brick and stone castle with a fortified outer ward, of which fragments of wall and earthworks survive (Haftka, 1999, p. 44). However, it demonstrates the efficiency of the model developed by the Order over the course of the fourteenth century for managing its territories with fortified administrative centres, even within unstable borderlands. The first engagements of the Great War between the Teutonic Order and Poland-Lithuania (1409–1411) focused on the Dobrin Land, although by this point the voigt's castle had passed back into Polish ownership and was itself the focus of a siege by the Order's army (see also chapter 8). Further east, the Masovian frontier remained relatively stable. The Polish King Casimir the Great sought to fortify this border with a castle at Rajgród, which was subsequently destroyed by the Teutonic Order, although castle building sponsored by the Polish Crown in the middle decades of the fourteenth century was focused on Lesser Poland and conquered Rus' lands (Wyrobisz, 1963, p. 69).

In the fourteenth and fifteenth centuries, a series of strongholds were constructed in the southern borderlands between the Teutonic Order's state and the Kingdom of Poland; 36 have been identified in the Kulmerland. First systematically documented from the 1930s, these have been the subject of occasional excavations from the 1960s. A number of these were early-medieval earthen mounds which had been re-used in the late Middle Ages when fortified buildings were constructed on them, whilst other 'mottes' (*grodzisko stożkowate*) had been freshly constructed from the fourteenth century as private knightly residences (Kola, 2002). Modifications to early-medieval earthworks varied from almost none to raising the height of the mound as at Bachotku (Grążawski, 1988). Elsewhere, at Jedwabnie and Gronowie, a main building, most likely a tower, was constructed and the earlier courtyard of the stronghold became an area for

service buildings. These central buildings could be one or several storeys high, with tiled roofs. The majority of these knightly residences were constructed on the western part of the Kulmerland uplands in various topographic contexts, including the shores of lakes and within smaller valleys, but in densely settled areas. All were located in close proximity to water, lakes, rivers and streams, and largely on soils extremely well suited for agriculture; several strongholds were also built in close proximity to meadows, suitable for raising livestock. These residences were defended by earthen or timber and earth embankments, ditches and wooden palisades; traces of the latter have been found at Gruta, Plemięta, Słoszewy and Wąbrzeźno. At Słoszewy, the half-timber and clay walls included a complex in the courtyard with a well, cellar and other service areas. At Radoszki, the complex consisted of a central timber building with stone foundations and nearby two smaller timber buildings. Aside from the 'motte type', there are also some examples of ringworks. The range of artefacts recovered from these sites is typical of knightly residences and includes a diversity of crossbow bolts and arrow heads, spurs, fragments of chainmail, as well as domestic items – various ceramic vessels, door fittings and animal bones. These complexes are reminiscent of those in Denmark, North Germany and western Scandinavia (Kola, 2002, p. 160), although functioning within a very different political context.

Conclusion

The Order's Prussian state, conceptualised as *Civitas Dei* with the Virgin Mary as its suzerain and protector, was juxtaposed with the dark, pagan world of the Prussians and Lithuanians. The Order promoted this legitimisation of their political rule and crusading ideology not only through the literature of their propagandists, but also through the dissemination of a specific set of artistic motifs widely applied on its conventual buildings, as well as on coins, seals, weapons and a diverse range of predominantly religious material culture. The art sponsored by the Order reflected a political ideology that is not found in the other crusading frontiers (Kutzner, 2010, p. 244) and the *raison d'être* of the Knights was explained in the visual and written language of apocalyptic confrontation; their wars were nothing less than the conflict between Good and Evil. Seen in this light, the Order's convents were, by extension, gateways to paradise. Even if this is pushing the interpretation of the fragmentary artistic record of medieval Prussia too far, it is nonetheless clear that a unified approach to the organisation and presentation of the Order's rule developed from the conventual castle. The shape of this 'fortified monastery' was itself negotiated during the period of active crusading against the Prussians up to the 1270s, when the design of the more durable buildings was influenced by bishops, monks and secular crusaders, rather than members of the Order. The loss of the Order's castle in Montfort and ultimately the Holy Land in 1291, the relocation of its headquarters from Venice to Marienburg and the annexation of Pomerania all heralded a new era in the sponsorship and organisation of castle

building in Prussia (Arszyński, 2010). This saw the construction of standardised conventual castles and smaller residences with the specific needs of the Order's communities and administration in mind. These buildings and their landscapes reflected the hierarchical structure of the Order and the consistent lifestyle of its members, whilst accommodating the ambitions of Grand Masters, commanders, procurators and other officials, the practicalities of construction that were envisaged by architects and masons, relative levels of investment for each site, the sizes of households and the challenges of local topography and security. Their location was strategic and deliberately planned, on a number of occasions making use of existing strongholds. The control of communication routes, particularly waterways, was one of the most important functions of the larger castles (Poliński, 2003, p. 241). This public face of medieval Prussia was emulated by some of its neighbours. The architecture of the Order's castles influenced both Polish and Lithuanian castle builders, particularly in Masovia. In the nineteenth century, scholars raised the issue of the link between the Order's castles and those in neighbouring regions, without exploring it in any detail. The construction of the Grand Master's palace at Marienburg may have prompted a trend in the Polish lowlands to build turreted residential castles. At Hunedoara in Transylvania, the castle of the Hunyadi family includes a tower built in the second quarter of the fifteenth century which visibly extended from the main part of the castle, in the manner of a *Dansker* (Kajzer, 2007).

Comparisons with secular states have and will continue to be made. In this respect, the pivotal event for many historians is the annexation of Pomerania. Since this was a Christian state the Order's dominion could not be justified by its crusading ideology. Furthermore, the contrast between Peter of Dusburg's work and later narratives has supported interpretations of the Teutonic Order's increasingly knightly or chivalric character in the late-fourteenth century. Whether archaeologists will contribute to our understanding of this character remains to be seen, but a useful insight would be provided by the material culture associated with frontier sites and particularly in their later phases of occupation from the mid-fourteenth to mid-fifteenth century. A cursory glance at site layouts indicates that castles built in Christian Pomerania followed the established template that unified the *Ordenstaat*. Moreover, after the initial period of hostilities Pomerania was no longer an active theatre of war. The specific range of artistic and architectural forms sponsored by the Order and the limited promotion of a musical culture – which otherwise defined the contemporary courts of Europe – which would only flourish after the secularisation of the Order in the ducal court at Königsberg (Gancarczyk, 2010, p. 282), have been linked to the unique climate of religious militarism generated by the intensity and character of warfare throughout the fourteenth century. From the mid-fourteenth century, public life within Marienburg became focused on the middle castle, increasingly reminiscent of a ducal court, with growing numbers of secular attendants (Józwiak & Trupinda, 2010, p. 35). However, visiting dignitaries and the resident household would be exposed to the full force of the Teutonic Order's ideology emblazoned

across its public spaces and expounded by its heralds and priests. The situation changed after 1410; indeed, it had already begun to change in the 1390s when Lithuania removed itself as a viable target of holy war. The response from the Order was to press their claims on Samogitia, officially the last bastion of independent, Baltic paganism. With the intermittent aid of the Lithuanians, the Order waged war against the Samogitians throughout the first decade of the fifteenth century, promoting the construction of castles, colonies and Christianity as it had done in Prussia. At this time, the castles of the Order become modernised with the latest trends in fortification to meet the challenges of artillery (Frycz, 1978) and, despite the tremendous losses at the battle of Tannenberg, its castles – particularly Marienburg – held out. Yet by the time Samogitia was finally ceded to Lithuania in 1422, the Order was in the grip of an ideological crisis that called into question its very existence. This was accompanied by the harsh reality of fiscal crisis as the economic basis for the maintenance of the Order's castles and armies declined (Gancewski, 2001, p. 81).

The Teutonic Order's red brick castles (alongside some of the churches within its former towns) remain its most striking – and most visited – material legacy. The history of castle archaeology in North Poland has been one of identification of structures, of verification of building phases and increasingly of the character of occupation and daily life; a similar approach is developing in the Kaliningrad Oblast. Their relationship to Prussian strongholds, colonising settlements and smaller manorial complexes has also given their study a landscape context. Historians, building on over a century of scholarship, have provided increasingly rich insights into the *minutiae* of multiple aspects of life, death, politics and religion during the 'golden age' of medieval Prussia. Art historians have in recent years added a particularly exciting and broadly unified perspective on the deployment of visual culture in the Order's state, demonstrating not only how visual expressions of political authority and the crusading ideology underpinning the continuing war against Lithuania were disseminated, but also how they were emulated (Domasłowski, 2010, p. 140). Two other groups increasingly sought independence from the Order's rule in Prussia: bishops and town communities. From the mid-fourteenth century, large numbers of religious sculptures were being produced outside the Order's convents, such as in the Ermland bishop's town of Frauenburg (Frombork) and Pelplin in Pomerania (Wozniński, 2010, p. 191). The process of urbanisation in Prussia, which has been documented in some detail by archaeologists in the post-war decades of the twentieth century, is one of the defining features of the *Ordensstaat* and one which would ultimately play a fundamental role in its disintegration.

Notes

- 1 In the architectural and archaeological literature *castrum* is often used to refer to a quadrangular castle enclosing an area with curtain walls (Boas, 1999, p. 98), in contrast to its use in primary sources. For the sake of clarity this typological term is not used.
- 2 This term is used in this book as a direct translation of Polish *puszcza* to refer to a large expanse of woodland.

5

FROM COLONISATION TO URBANISATION

Towns and international trade

Introduction

Were there towns before the crusades in Prussia? Geographers, historians and archaeologists have long debated the definition of what constitutes an urban centre (Fehring, 2004). What is important in this context is whether non-agrarian settlements before and after the thirteenth century were comparable, or whether the Teutonic Order's and bishops' towns were a completely different cultural phenomenon from earlier Prussian centres. In the context of the southern Baltic, similar roles were fulfilled by central places primarily associated with long-distance trade (*Seehandelsplatz* or *emporia*); strongholds with associated settlements which concentrated political and military power with administrative and economic functions, as well serving as the hubs of exchange networks (*grody* or *castra*), and the late-medieval towns with distinct municipal functions (*civitas*). Truso and Wiskiauten can be defined as the main Prussian-Scandinavian proto-urban trading centres or *emporia*. The abandonment of the former coincided with the emergence of Gdańsk on the western side of the Vistula Delta in the tenth century (Barford, 2005, p. 75), whilst Wiskiauten was abandoned in the eleventh century. Subsequently, between the eleventh and early-thirteenth centuries the role of inter-regional trading and production centres in Prussian territory was adopted by strongholds and their associated settlements, such as Tuwangste in Sambia or Jegliniec in Sudovia, although these sites, or at least those parts that are known archaeologically, provide no evidence of an organised internal layout with streets or thoroughfares, and an intensity of activity comparable to Gdańsk or Lübeck. The borderlands of Prussia, particularly the Kulmerland, saw the development of nucleated settlement associated with the Piast state, the most important of which was Kałdus (Czaja, 2009, p. 178; see also chapters 2 and 3).

Towns in the crusading era

There are two major features that separate the pre-Crusade central places from the late-medieval towns. First, there is little or no archaeological evidence

for the continued occupation of major settlements in Prussia after the thirteenth century, especially those associated with strongholds. Within the Slavic/Prussian borderlands, there is often evidence of earlier settlement on the sites of the later towns, such as at Mewe (Gniew) (see also chapter 3). Second, settlements founded by the Teutonic Order and crusading magnates were organised under German town laws. The volume of scholarly literature on medieval town planning in the Holy Roman Empire is intimidating, although archaeologists have demonstrated that the two centres which inspired the most influential urban templates – Lübeck and Magdeburg – were themselves the result of decades of organic development and stepped, even erratic responses to volatile political situations from which an urban ideal emerged (Fehring, 1990; Weber, 2007). The Lübeck Law was adopted in Pomerania before its annexation by the Order, whilst the Magdeburg Law became adopted as the standard for towns in Poland, Lithuania and western Ukraine, a defining feature of the medieval and early modern culture of central and eastern Europe (Ebel, 2004). Whilst there are seven cases where the Lübeck Law was granted to settlements in Prussia, the preferred the Kulm Law – itself based on the Magdeburg model – was used by the Teutonic Order from the earliest years of the Prussian Crusade and was granted to 87 settlements (Czaja, 2009, p. 196). The principle was simple: the founders made a donation of land to the town and to each settler, and the law prescribed every detail of the town's layout, from the width of its streets and the dimensions of its tenements through to privileged access to fields, woods, rivers and lakes. In return, the town had to provide military support (as knights with their retinues or in the form of militia) and economic services. This deliberate and calculated process of planning, involving the location of a concentrated settlement with specific rights and obligations, combined with the use of a regular grid to organise the layout of the built-up area, is a distinctive feature of urbanisation associated with the *Ostsiedlung* and expressions of organised colonisation in other regions of Europe.

In Prussia, the establishment of planned towns was clearly associated with the consolidation of conquered territory and the development of a war economy (Figure 5.1). The first towns were founded in the Kulmerland, after which Marienwerder represented the base for attacking Pomesania and then Elbing for Warmia and eastern Prussia. Virtually every major *castrum* built by the Order in the decades of active crusading, especially those that became designated as commandery centres, was accompanied by the foundation of a settlement within its vicinity. From the German word for castle (*Burg*), these settlers were known as burghers. The nature of this early settlement is known archaeologically for a number of towns, and it is clear that controlled planning was imposed relatively quickly, although in a number of cases settlements were re-planned. Active involvement in trade stimulated the growth of the early urban colonies, which were located on major communication routes, particularly waterways. Elbing, for example, was situated on the river linking Lake Družno and its streams with the Vistula Lagoon (although the shrinkage of the lake would compromise



FIGURE 5.1 Map showing the towns in medieval Prussia (redrawn aft. Biskup *et al.*, 2009)

effective communications; see also chapter 7). Thorn (Toruń), Graudenz (Grudziądz), Mewe and Marienburg (Malbork) had direct access to the Vistula, and the arrangement of streets in Elbing (Elbląg) and Thorn was designed to provide direct and quick access to the riverside. The development of mercantile activity in the Baltic in the late-twelfth and thirteenth centuries, particularly (but not exclusively) associated with the Hanse, shadowed, supported and took advantage of crusading activity. From the perspective of the Order, promotion of trade was very much in its interests and developed as an economic basis for its crusading economy and its state. Moreover, commerce was not restricted to urban colonies: two papal bulls in 1257 and 1263 permitted the Knights to buy and sell products to meet their own needs (Arnold, 1996b).

It is easy to imagine locators promoting 'a new land of opportunity' to the first generations of colonists, as is the dogged, opportunistic and resilient 'frontiersman' mentality of the settlers (Urban, 2000). The effectiveness of the actual and perceived prospects of the medieval Prussian frontier town can be readily demonstrated in two ways. First, the major centres established by the Order founded in the early years of the crusades survived into the late-thirteenth century, even though they were periodically attacked and particularly badly damaged during the Great Prussian Uprising, with the exception of Elbing (Czaja, 2009, p. 184). The oldest surviving properties were constructed at this time in both Kulm (Chełmno) and Thorn (Mroczko, 1974, p. 301). Second, within a couple

of generations there is evidence for the development of a wealthy urban population which was able to replace timber buildings with more durable brick structures, sponsor (or contribute to) the construction of churches and municipal defences, develop a sustaining internal economy and participate in long-distance trade. Even Memel (Klaipėda), situated in arguably the most dangerous and unstable region of the Order's state and organised under the Lübeck Law, persisted throughout a century of warfare with Lithuania. The success of medieval Prussian towns directly reflects the perseverance of the colonists themselves and the effective organisation of the *Ordenstaat's* infrastructure by the Teutonic Knights, bishops and the emerging civic elite. The process of urbanisation can be sub-divided into two stages: up to the 1280s urban colonies provided a stable foundation for the development of the Order's state, parochial system and the proliferation of missionary activity. They were founded by the Order collaborating with princes and magnates involved in the Crusade. Once Prussia had been pacified, urbanisation was driven by the higher officials of the Order, by commanders, bishops and chapters. At this point, it became closely linked with the colonisation and management of the countryside, and the growth of towns in the late-thirteenth and fourteenth centuries has been particularly attributed to increased grain production in rural Prussia (Urban, 2000, p. 232). The obligation to deliver grain as tithes, alongside the payment of taxes, resulted in a profitable trade in grain regulated by the Order. Convents and towns represented a dual-mechanism for the economic organisation of the conquered territories (Czaja, 2009, p. 177). In this respect, the environmental exploitation strategies adopted within late-medieval Prussia contributed significantly to the development and consolidation of the Order's state (see also chapter 7).

Before the end of the thirteenth century, some towns had grown too large for their existing walls and were moved to a new site and re-founded, expanded or in a few cases a secondary New Town added with a separate legal and administrative status (Urban, 2000, pp. 357–358). Some towns were completely detached (e.g. Gollub (Golub)), separated but linked with urban fortifications (e.g. Mewe), or incorporated castles within their urban fortifications (e.g. Thorn; Neuenburg (Nowe)). Some of these towns have remained comparatively small, such as Malbork and Sztum (Stuhm), only beginning to properly sprawl in the second half of the twentieth century, whilst others, such as Elbląg (modern population 128,000) and Toruń (modern population 206,000), have expanded significantly beyond their medieval boundaries. Elbing is estimated to have had 5,000 people in its medieval heyday, with most of the original inhabitants coming from Westphalia, the Rhineland and Thuringia, but with the population diversity including burghers from Prussia, Pomerania and among the Patrician class, from north and central Germany (Nawrońska, 2008, p. 510). The population of medieval Thorn on the other hand has been estimated at around 12,000, where Poles formed around a fifth of the inhabitants (Biskup, 2002a, p. 137). Radzyń Chełmiński (Rehden), once a major commandery centre, has remained relatively small and self-contained into the present day with

barely 2,000 inhabitants. In contrast, Elk (Lyck), which began as a small settlement associated with the procurator's residence at the end of the fifteenth century, has developed into a town with a population numbering over 61,000. Modern Kaliningrad (Königsberg), with a population of almost half a million, encompasses many districts that were formerly detached settlements or farmland beyond the boundaries of medieval Königsberg. The impact of urbanisation was far more pronounced in the thirteenth and fourteenth centuries. The growth of towns significantly contributed to changing the ethnic composition of Prussia and repopulated the borderlands which had seen the abandonment of strongholds and settlements in the late-twelfth/early-thirteenth centuries.

Urban archaeology and history

Many settlements in medieval Prussia with town rights have seen rescue excavations in recent decades and several contain existing medieval fabric, such as preserved fragments of town walls, gates and more often churches. In many cases their internal road plans have not changed significantly and their medieval core typically forms a central Old Town district representing a small part of the conurbation that has grown up in the post-war decades. The towns of Prussia were particularly badly affected by the Second World War. Marienburg, Elbing and Königsberg were virtually destroyed, although in the case of the former, parts of the walls, the town hall, the church of St John and of course much of the castle survived the Red Army's artillery barrage. The smaller towns were also badly affected. Thorn, uniquely, was largely preserved, although a significant proportion of the medieval fabric had already been replaced. The post-war years saw a concerted rebuilding effort particularly in the historic centres of Gdańsk and Elbląg, prompting large-scale excavations revealing an incredible wealth of preserved cultural layers, for which these towns have become known internationally (see also chapter 8). In Malbork on the other hand, only the damaged parts of the castle were reconstructed and the gutted Old Town was gradually replaced with housing blocks that are today in urgent need of upgrading or replacing.

From an archaeological perspective, the study of medieval Prussian towns falls into three categories: the origins and morphological development of the built-up area, specific complexes within the town such as the *Rathaus* (town hall) and the nuances of daily life as reflected in excavations of individual tenements and street sections, ranging from diet and musical tastes through to long-distance trade and mercantile bureaucracy. There is some overlap with studies of town architecture that has resulted in very detailed works on sacral buildings and town halls. Both of these research areas are readily integrated with written sources that increase in abundance from the mid-fourteenth century. Extensive study of the late-medieval documentation has enabled detailed urban historical narratives to be written, demonstrating the political and economic complexities of Prussian towns, as well as tensions between the Order and the increasingly independent urban communities (Czaja, 1999). Furthermore, a

large number of artistic works were produced within towns that demonstrate not only the prosperity of their population, but also their civic and religious aspirations (Figure 5.2). Given the wealth of both material culture and written sources, the character and role of Prussian medieval towns can be readily situated within a broader European context, and both archaeologists and historians have devoted much attention to the international trading networks that fuelled the economy of the *Ordensstaat*. This chapter presents only three towns in the Teutonic Order's state as case studies within the broader discussion on urbanisation: Elbląg, Toruń and Gdańsk. The aim of outlining these centres is to demonstrate the particular character of controlled urbanisation within the Prussian crusader state. Kaliningrad, which has seen increasing archaeological investigation from the mid-twentieth century, cannot be included in this survey due to the comparative lack of recently published material and the constraints of space. Nonetheless, it was one of the most important towns in medieval Prussia functioning as a key commandery centre, port and the primary base for the fourteenth-century *Reisen*.

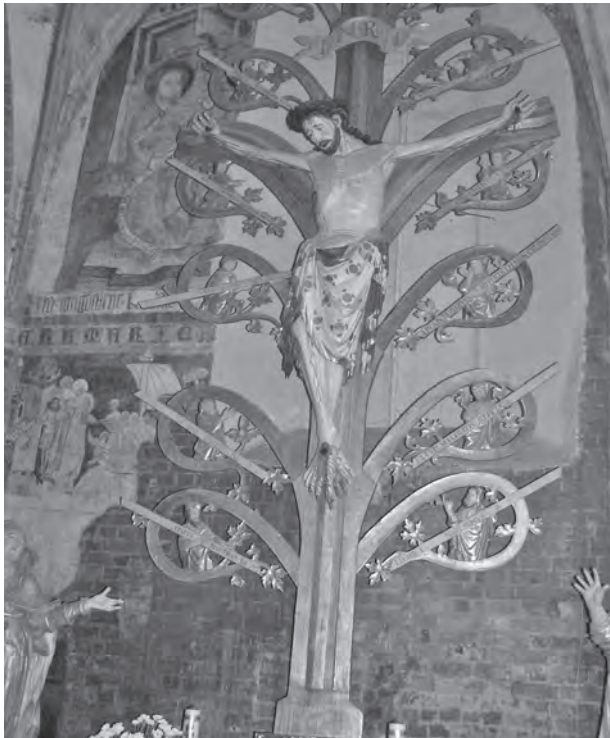


FIGURE 5.2 A rare, surviving example of the high-quality religious art produced by late medieval urban workshops in Prussia. This crucifixion/tree of life dating to the late-fourteenth century is housed in the church of St James in Toruń (Thorn), formerly in the church of St Nicholas

Elbing (Elbląg)

Following the conquest of Pomesania, Peter of Dusburg described how the Teutonic Order constructed a fort on an island in the River Elbing in 1237, from material prepared beforehand at Marienwerder (Kwidzyn) (*Chronicle*, III: 16; Wyszomirski & Wenta, 2004, p. 54). At the time, the location was well connected via the waterways of the Vistula Delta and facilitated effective communications with Lübeck – the source of the first documented wave of colonists to settle in the vicinity of the Order's fort after it was stormed by the Prussians (Haftka, 1999, pp. 80–81). The town charter for Elbing, adopted under the Lübeck Law in 1246, specified a wide road marking the perimeter of the town, and that access to defensive places remained open. The town was laid out over 15 hectares and subsequently enlarged to 24 hectares (Nawrońska, 1997, p. 21). By the mid-thirteenth century, the Order's convent here became the most important political centre in the conquered territories, and the town quickly expanded as a thriving Baltic port. It resisted Pomeranian attacks in the 1260s only to suffer destruction by fire in 1288. Shortly after, it was rebuilt and remained an important trading centre in the *Ordensstaat* until its burghers rose up and destroyed the castle in 1454.

Until 1980, archaeological investigations in Elbląg were limited. German archaeologists had uncovered building foundations, which included timber structures. The Second World War severely damaged the Old Town; 98 per cent of the buildings were estimated to have been destroyed, although the medieval layout survived, the remains of which were documented in the 1950s. The first major excavations took place at the site of the Dominican monastery in 1959, continuing in 1975 and 1977, as well as in the castle in 1977. The first systematic excavations did not begin until 1980 under the direction of Tadeusz Nawroński and Grażyna Nawrońska (Lubocka-Hoffmann, 1992; see Nawrońska references in this chapter). Subsequently, Mirosław Marcinkowski became involved in excavating and analysing fabric from the Old Town, particularly the ceramic assemblages; most recently from the castle. Up to 1996, 5.6 per cent of the Old Town had been excavated with the aim of investigating the development of the town's plan; the earliest map of the town dates from 1626 and so archaeology has been essential for reconstructing the town's medieval morphology (Nawrońska, 1992) (Figure 5.3). Excavations in the Old Town have yielded (and continue to yield) some of the most impressive medieval urban archaeology in Europe, with the waterlogged soil preserving an incredible array of organic material, ranging from wooden structures through to musical instruments, textiles and wax tablets. As a result, the medieval town also has one of the best dendrochronological sequences in Europe, with over a thousand dated samples (Ważny, 2004).

The early colony

The earliest part of the colony was situated around the market, with the latest district developing in the north-east side of the town and the overall layout

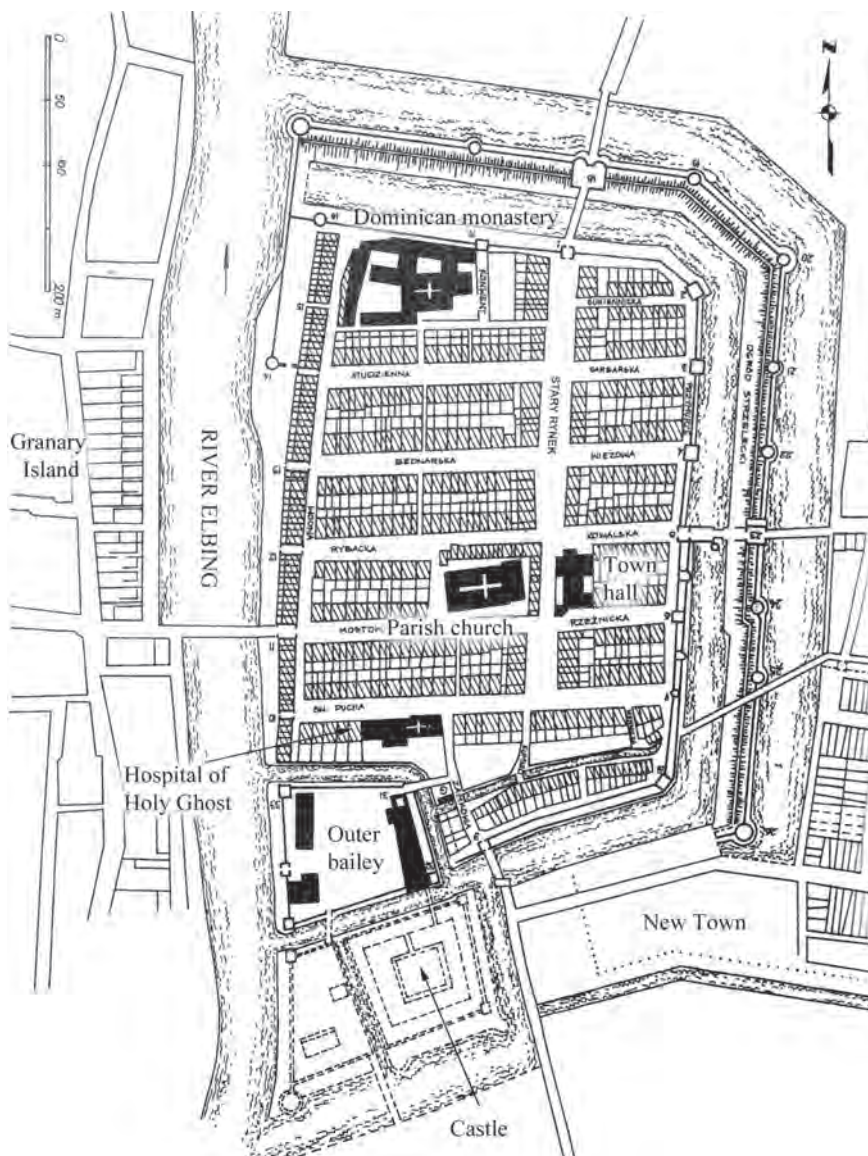


FIGURE 5.3 Plan of Elbing (Elbląg) in the fourteenth and fifteenth centuries (aft. K. Hauke, H. Stobbe and B. Kiliński)

reflecting its primary function as a port. The market square was not regular, instead consisting of a street (Stary Rynek or Old Market) which divided the urban space into two parts concentrating activity associated with internal trade, as well as the main civic buildings: the town hall, the parish church of St Nicholas, the parish school and pharmacy and the so-called 'Artus court' (for a discussion of this see below). The north-eastern part of the town was associated with various industrial activities, including ceramic production (Nawrońska, 2006). At this time, the town was surrounded by an earth and timber embankment, which was replaced by a single circuit of brick walls after the fire. Long-distance trade and fishing was concentrated on the river bank, where two great scales for weighing meat and heavy goods were located. Fish processing also took place within the town. On Bednarska 23, a building dating to 1260–1280 included the remains of sturgeon fins and crania, alongside fragments of wine pitchers from Saintonge suggesting the property belonged to a higher status of fisherman (Marcinkowski, 2006). Extensive excavations on the site of the former town hall (dismantled and replaced after the fire of 1777) in the late 1980s and early 1990s uncovered an area of 1,500m² and revealed the stone foundations of a tower erected before the 1288 fire. In front of it were the remains of a mid-thirteenth-century pillory, a visible symbol of civic jurisdiction which is only first documented from 1385 (Nawrońska, 2004, pp. 307–308). A number of religious institutions were also present in the early town. Excavations at the nearby church of St Nicholas and its cemetery revealed seven layers of burials – the oldest in wooden coffins oriented W–E and dated by dendrochronology to the mid-thirteenth century (*ibid.*, p. 309). Polish Dominicans set up a friary and church in the northern district and, from 1261, Elbing was the seat of the bishop of the Ermland diocese and received papal legates (see also chapter 6).

Timber was extensively used in the early town. Excavations revealed the remains of wooden street pavings of various arrangements, dates and construction in a number of areas, such as Murna (Wall), Old Market, Wodna (Water) and Kowalska (Smiths). In the Old Market, two levels of wooden paving were uncovered, the first dated by dendrochronology to 1255 and the second to 1257–1265. The street was 19.05m wide (representing four 'new Kulm perches') and paved with oak boards placed on foundation beams; in contrast on Murna the paving logs were placed directly on the sandy bedrock. Excavations revealed that a number of inner streets ran between buildings, dated by dendrochronology to the later decades of the thirteenth century. Around 120 buildings have been explored in the Old Town, revealing walls sub-dividing tenements and plots with extensive assemblages of material culture. The first phase of buildings consisted of detached, wooden single storey houses generally around 20–40m², whilst the largest houses covered an area of up to 52m². A limited number of stone and brick structures were also constructed at this time. As Elbing was located on wet soil, buildings were set up on foundations of stones, rows of timber piles, or more commonly on large oak logs (80cm in diameter and 1m long) placed at the corners under the posts, with

sill beams of square or rectangular cross-sections. These contained sockets for posts and grooves for wall planks. Most wooden buildings were set up as frame constructions. The oldest, dating from the 1240s, were wattle and daub walled structures of varying dimensions, most of which have been uncovered in the north-east part of the Old Town. There were also stave building constructions consisting of corner posts holding stave walls, as well as structures consisting of horizontal logs wedged between rows of stakes. In the 1280s, buildings with walls consisting of planks set within a timber superstructure were situated in the middle of plots. Flooring was constructed of planks typically placed on joists, in some cases clay and even from fragments of ship hulls (e.g. Św Ducha Street 21). Inside the remains of rectangular, stone hearths have typically been found (Nawrońska, 2006, p. 407). Although traces of wooden door openings have been uncovered there is no evidence of windows, and the interior was presumably lit by an opening in the roof to enable smoke to escape; window frames have been recovered from excavations in Elbląg, but they have been identified as belonging to ships rather than houses (Kąsinowski, 1997, p. 51). These early buildings were not aligned with any street or property boundaries and imply a different approach to settlement organisation in the early phase of colonisation. The stone foundations of four residential towers, dating to before 1288, were discovered during excavations in Kowalska 12, Rybacka 34, Św. Ducha 4 and Bednarska 22 and point to the early presence of wealthy burghers (Nawrońska, 2004, p. 305). The detailed study of these buildings has revealed how social stratification, related to trade, developed extremely quickly in the town (Figure 5.4). The first phase of the colony ended in 1288 with a fire that destroyed the majority of buildings – whether this was accidental or the result of a Lithuanian attack is unknown.

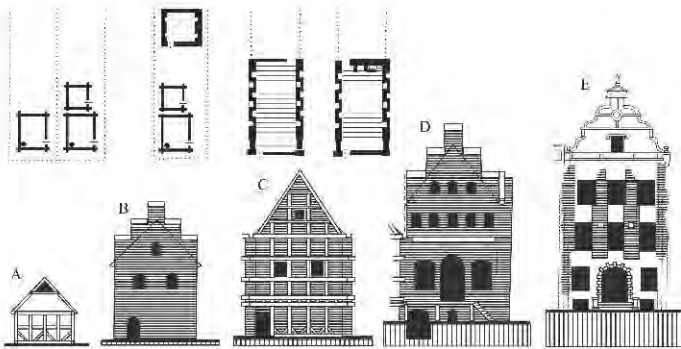


FIGURE 5.4 The chronology of vernacular buildings in Elbląg (Elblag): (a) free-standing timber building; (b) timber house after 1288; (c) 'Elbing' type house, compact structure separated from neighbouring property with brick walls, dating to c.1300; (d) construction of three storeys with entrance relocated to first floor, dating to after 1340; (e) frontage walls dating to the fifteenth century with seventeenth- and twentieth-century additions (aft. Nawrońska 2004)

The later town

Following the fire, there were several changes in the layout and organisation of the town which recovered quickly, and the 1290s–1340s was a period of intensive rebuilding. Excavations revealed the earlier timber buildings were truncated by fourteenth-century wooden walls, and after more detailed mapping of property boundaries is carried out this will eventually confirm whether the town was completely re-planned after the fire (Nawrońska, 1997, p. 25). What is clear is that the organised, compact development of the built-up area only began after 1288 and the first example of a brick house dates from 1301. Between 1330 and 1360 there is evidence for 116 brick houses. The first few decades of the thirteenth century were therefore characterised by a transition from timber to brick, with structures of both types butting against each other. In some areas it was possible to locate five or six phases of timber buildings before the first masonry structures appear. The earlier post structures were replaced from the mid-fourteenth century by timber-framed superstructures filled with bricks or clay, varying in size from 26m² to 51m². The buildings were placed lower than today's sea level as the street levels have changed significantly over the Middle Ages by 2.5–3m (in Pomeranian Kołobrzeg, which is often compared to Elbląg, the difference in the street level is around 4m; Kašinowski, 1997, p. 54). As the street level rose, the front entrance shifted and the former ground floor was converted into a cellar, with a new ground floor containing the hall added, as well as upper storeys. The earlier timber ceilings were replaced with barrel and cross vaults (Nawrońska, 2001). This also resulted in main entrances being moved to the first floor in some houses, accessible via a staircase or ramp, with the protrusion onto the street carefully outlined in the Lübeck Law. When two-storey houses appear, evidence for windows remains limited. One example looking out onto the yard of the property consists of an arrow slit measuring 15 × 60cm; another example looked out onto the street and measured 45 × 75cm. The floors were connected by ladders and stairs; the latter were found in 30 per cent of excavated properties, although the first floor only survived in a few examples. By the 1340s, third storeys were being added to some buildings with interiors sub-divided between industrial, residential and storage spaces. Tenement yards were paved with stones or covered in clay, and some streets were packed with stones and rubble. Outbuildings were erected, first as timber-framed structures then in brick, serving as living quarters and then as workshops and stores, with their own stoves, water supplies and sewers. By 1340, the walled area of the town was built up and this layout would not change until the end of the eighteenth century.

At the start of the fourteenth century, the town boundary was redefined by the construction of a second wall separated from the earlier, inner wall by a moat; the defensive system with eight towers and nine gates would not be completed until 1380 (Nawrońska, 2004, p. 303). During the eighteenth century, most of the walls and gates were dismantled and only the Brama Targowa

(Market Gate) remains. Pottery production was moved beyond the town walls, although already in the second half of the thirteenth century the town had developed suburbs which contained hospitals, poor-houses, inns, taverns, brothels and industrial areas. There was a port suburb on the so-called Granary Island which contained granaries, warehouses, shipyards and, from the mid-fourteenth century, a town bath. The oldest, northern suburb contained a high density of craftsmen focusing on ship building, tanning, fulling, rope-making and brick production, whilst the Order's mills were situated in the eastern suburb (*ibid.*, p. 315). Excavations in the eastern and southern areas of the town have suggested these were occupied by inhabitants with a low economic status; more than 250 timber houses were discovered here which could be extensively dated with dendrochronology from the thirteenth to late-fifteenth century, whilst the cellars of 196 merchant houses, predominantly from the fourteenth century, were also excavated. The Old Market street was sub-divided into different industries including bakers and colliers (Nawrolski, 1992) and continued to function as the focus of the town, where the most prestigious buildings were located. The socio-topography of the town can, in part, be reconstructed from the ownership of plots within the town, estates around the town and from the participation of the burghers in military expeditions (Nawrolska, 2008, p. 511). The most prestigious plots in the town were located on roads leading to the river, reflecting the association between the elite and commerce. The house of the patrician fraternity of St George located in the Artus court was built before 1320 on nearby Rybacka, and the town hall itself was upgraded with the development of the town.

When the town hall was excavated, various architectural elements were recovered, indicating lavish decoration of a building matching the investment evident in the architectural elements of the Order's castle (Rynkiewicz-Domino, 2010c; see also below). Part of a column capital decorated with foliage represented a common ornament in Prussian gothic architecture, reminiscent of the English decorated style from the end of the thirteenth/early-fourteenth century. Indeed, artisans from England may have been active in the masonry workshops of Elbing which had established trade links with English merchants. In the early years of the fourteenth century, a long building known as the 'cloth hall' was added to it, totalling 36m in length and expressing the wealth and status of the town's mercantile elite. Within the cloth hall partition floors and two layers of tiled floors with large quantities of ceramics were found, of which around 90 per cent were imported and included fragments of stoneware jugs from the Rhineland. These connect the civic elite with the Hanseatic network dominating northern European trade in the fourteenth century. In 1384, columns made from imported Gotlandic stone were added, a further expression of wealthy investment echoed in the Order's headquarters at Marienburg. The town hall complex represented an administrative-trading centre containing various functional spaces: the chancellery, treasury room, council chamber, 'summer hall', an armoury and its cellars rented as wine

stores. Hints of these documented functions were revealed by excavations in the latrine, from which a significant quantity of wax seals, along with fragments of weapons and cannon balls, were recovered (Nawrońska, 2004, pp. 307–308; for a detailed description of the building phases see Balcerzak, 2004).

The diversity of commerce and production is attested by excavations of numerous tenements and industrial zoning is evident in some areas: leather-working, for example, was clustered in specific districts, as in the north-east where two wooden buildings were found with many leather off-cuts, ready-made shoe forms, pouches, sheaths and tools dating from the fourteenth and fifteenth centuries. Excavations in this district have also recovered a range of horn products, including combs, dice, rings, toys and waste from rosary production (Nawrońska, 2004, p. 315; 2006, p. 400). On Garbary 23 in the northern part of the town, 202 wooden bowls and plates dating to the fourteenth century were found; many were signed, probably by the craftsmen and were intended for sale. Many other wooden items were also found, including a fifteenth-century mousetrap. With the development of the town came the provision of specialist services. Macrobotanical remains, which could be connected to medicinal uses, were found in the layers of fourteenth- and fifteenth-century houses, situated in the yard of a plot at 23 Holy Ghost Street and may have been the residence of a herbalist; a pharmacy is documented in the town from 1387 (Nawrońska, 2004, p. 313). Overall, the assemblage of small finds from the Elbląg excavations, discussed in more detail towards the end of this chapter, confirms the town's extensive participation in manufacturing and international trade into the fifteenth century.

The growth of the town in the fourteenth century put pressure on earlier gardens and pastures, previously located in the north-east area and between the town gate and Dominican monastery. In 1326, the border of the town was moved in the direction of the river enabling better access to the port and new land for building, whilst the number of town plots and households dramatically increased over the fourteenth century (Nawrońska, 2008, p. 520). Perhaps this is why a second town or suburb was built between 1335 and 1337, and later granted privileges under the Lübeck Law. The New Town of Elbing functioned as a separate unit until 1478. By the fifteenth century, the Old Town occupied an area of around 24 hectares containing 658 residential properties, and together with its satellite settlement was one of the largest urban complexes in the Order's state (Czaja, 1997). The Order's castle, situated to the south of the town, formed its own quarter consisting of the main conventual building and three outer baileys, all divided by moats linked to the river. To date, very little of it is known archaeologically, although after Marienburg it was one of the most important centres in medieval Prussia. The castle was the headquarters of the Great Hospitaller who also served as the commander from 1312, and it was one of the largest convents in the *Ordensstaat* – in 1451 there were 49 knight-brothers and four chaplains. Its chapel dedicated to St Andrew, containing the relics of the True Cross, was an important centre of pilgrimage

(Haftka, 1999, p. 81). Unfortunately, very little is known about the function of the castle and its precincts in the thirteenth and fourteenth centuries, although it is likely its relationship with the town – and between the Order and the townspeople – will be better understood through future excavations. Elbląg is arguably the best excavated of the Teutonic Order's colonies that was established during the crusading era. The consistent and widespread use of town laws in the south-eastern Baltic promoted a relatively standardised process of urbanisation, although the character of each settlement was dependent on the agenda of its founder, its role in regional and inter-regional trade and the related wealth of its population. After Elbląg, the best archaeologically known example of the Order's planned towns is represented by Toruń.

Thorn (Toruń)

Rescue excavations conducted in the Old and New Town of Toruń, especially from the 1980s, largely revealed early modern and late medieval rubble resulting from successive phases of building and urban renewal (Uziembło, 2002), but also uncovered earlier structures such as fragments of wall or timber, including wooden pipes used to channel water around the town at sites such as Chełmińska Street (Kola, 2000). A long-term, multi-disciplinary project being undertaken by the UMK (Nicolaus Copernicus University in Toruń) is currently synthesising all information relating to the history and archaeology of the town, and its publication will represent an important landmark for our understanding of the process of urbanisation within a European context. The Order's castle has been the subject of multiple excavations, mostly readily associated with Jadwiga Chudziakowa from 1955–1966, where much of the derelict structure was uncovered, and from 2008 until the present by Adam Chęć (2011).

A thirteenth-century trading centre

In 1231, the Order built a castle and established a settlement on the northern bank of the Vistula, which only five years later was transferred around 10km to the site of an earlier Slavic stronghold situated on an outcrop overlooking the Vistula (Czaja, 2009, p. 179). The stronghold had been constructed in the seventh century and fortified with a timber and earth (sand) embankment in the tenth century. To the west lay an associated settlement, the remains of which were largely destroyed during the construction of the castle moat. The stronghold was abandoned at the start of the twelfth century, most probably as a result of Prussian incursions, although the settlement appears to have continued into the first half of the thirteenth century, and the Order's first fortification here may have focused on an area of resettlement that has yet to be defined archaeologically. The horseshoe-shaped embankment protecting the landward side of the stronghold guided the form of the Order's castle, which was ultimately constructed as an enclosed structure (Chudziakowa, 1983, pp. 17–19;

see also chapter 3). The town of Thorn, relocated here alongside the castle, was only granted rights under the Kulm Law in 1251 following a fire. As the administration was established, a town council, major and judicial officials were appointed. Thorn acquired extensive land including a two-mile stretch of the Vistula with five islands; by the end of the thirteenth century its property encompassed an area of 5,530 hectares. This included a significant amount of woodland enabling animal husbandry to be developed, particularly – according to written sources – goats and pigs, but also horses and cattle, as well as gardens and, on the warmer banks of the Vistula, vineyards (Czacharowski, 1983, p. 37; see also chapter 7). This provided the basis for the flourishing of one of the most important towns in the Order's state and a vital link in the trading network between Poland and Prussia in the Middle Ages. Ironically, it was Thorn that saw the first uprising against the Order's rule which resulted in the destruction of the castle in 1454.

The earliest structures uncovered by archaeologists in the Old Town were probably built before the town was granted its official status (Chudziakowa, 1983, pp. 24–25). Excavations in the streets of *Szczytna*, *Mikołaja Kopernika*, *Ducha Świętego*, *Rabiańska* and *Podmurna* have revealed the remains of thirteenth-century structures, which show a clear deviation from the late-medieval plan; the boundaries of the later properties and streets do not, in many cases, correspond to the earlier structures. A number of narrow, timber paved streets, in some cases consisting of three levels, have been uncovered running in the direction of the Vistula, reflecting the importance of access to the river for the burgeoning trade of the early town. The best-preserved complex dating to this early phase was discovered by 15 *Kopernika*, where houses, streets and wells were found. Nearby at plots 11–13, excavations down to a depth of almost 7m uncovered occupation layers from the first half of the thirteenth century, as well as a timber construction with two gothic wells and traces of various craft activities. The excavations within these buildings recovered some 24,000 finds (including ceramics, wood, leather, bones and iron), of which 40 per cent were late medieval, and confirmed that the earliest structures constructed in the town were much larger than had been previously thought (Trapszyc, 2002, p. 76). Already from the second half of the thirteenth century, some brick buildings were constructed including churches, the central trading complex and a few wealthier tenements.

In 1264, a New Town was established next to the existing town, with a separate circuit of walls (Figure 5.5). Its parish church dedicated to St James was constructed from brick in the early-fourteenth century. Here, excavations have not revealed any preceding settlement, and timber continued to be used in house construction until the mid-fourteenth century when it was replaced with brick. Very little survives from the thirteenth and fourteenth centuries, and the earliest standing buildings in the satellite settlement are from the fifteenth and early-sixteenth century (Czacharowski, 1983, p. 86). Excavations in the New Town square in 1988 uncovered parts of the medieval town hall

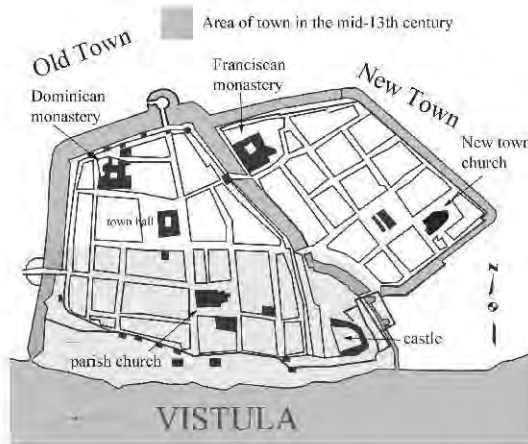


FIGURE 5.5 Plan of Thorn, c.1300 (Toruń) (redrawn aft. A. M. Noryskiewicz)

dating from the mid-thirteenth to fifteenth century (Grzeszkiewicz, 1992). This second town was granted its own charter under the Kulm Law and effectively functioned as a separate entity, often in conflict with the interests of the Old Town. The New Town was populated by artisans and, by the end of the thirteenth century, it had become a major centre for cloth production. Thorn cloth, though not as good quality as that produced in parts of western Europe, would become widely exported throughout the Order's state and to Poland (Czacharowski, 1983, p. 43).

The flourishing fourteenth-century town

The development of Thorn in the fourteenth century can be seen in the light of neighbouring political changes, specifically the temporary weakening of Gdańsk following its war with Brandenburg and partial destruction and occupation by the Teutonic Order, as well as the consolidation of the Kingdom of Poland which provided a major market and trading stimulus. On the other hand, political tensions between Poland and the Order prompted many trading restrictions throughout the middle decades of the fourteenth century (ibid., pp. 53–55). The fourteenth and fifteenth centuries saw extensive building work, evident in numerous excavations, particularly in the north-western part of the medieval town, as well as in surviving buildings and fragments of the town wall (Trapszyc, 2002, p. 77). The rebuilt Old Town was organised on a modular grid, enclosed by a circuit of walls and towers with the market square as the focal point. A 1393 document concerning the construction of the brick town hall specifies detailed dimensions for the structure; the length of a brick and its joint corresponded to the 'Kulm foot' which, in turn, corresponded to

the specific measurements of the building. The use of regular grids explains the shapes and sizes of various civic buildings in Thorn, including the town hall, which replaced the trading complex in the market at the end of the fourteenth century (Gąsiorowski, 2002).

Brick replaced wood following a ruling by the town council so that by the end of the fourteenth century virtually the entire town was constructed from brick, and its architectural beauty was noted by contemporaries (Czacharowski, 1983, p. 81). Over the course of the fourteenth century, the timber structures of the market square were converted to brick; a few examples survive in the modern street-frontage. A brick town hall was built in the square in the mid-fourteenth century, housing a complex of functional buildings including merchants' residences and a toll house. The largest properties belonged to patrician families; the smaller, narrower tenements with two-window buildings were inhabited by artisans. Merchants, in turn, built tenements with three to five storeys. Many buildings had cellars which, in the fourteenth century, functioned as living areas, except in the merchant houses where they served as storage areas, alongside the upper storeys. Areas used for storage and warehouses typically had smaller windows. Significant numbers of the latter were built in the fourteenth century (and later) with the development of intensive trade. They are particularly represented by the granary buildings in the southern part of the Old Town. The best-preserved example stands on Piekary 4 and dates to the second half of the fifteenth century having replaced two earlier merchants' tenements which shared a single frontage, although each had its own entrance and high-ceiling hall with corner hearths (Figure 5.6). In the Order's time, there were 30 such buildings documented here. From the mid-fourteenth century, the dimensions of cellar entrances fronting the street were regulated at around 2.2m wide and 76.5cm high with surviving examples by Żeglarska Street. A typical house is found on Szczytina 2 and consists of a quadrangular building in the shape of a tower. Some of its floors only had a single space with vaulting supported on a single granite column, also evident in the cellar. The ground floor functioned as a reception area and upper storeys were residential in character. This was a dwelling for a knight or more important cleric, rather than a merchant (*ibid.*, p. 82). The interior decoration of these buildings rarely survives; exceptions include the cellars of the house by Łazienna 16, where a bracket decorated with the figures of St Anne and St Mary was discovered. This originated from the house of the Hitfeld family, one of the most powerful urban knightly families in medieval Prussia who were engaged in both mercantile activities and military service for the Order. The house was constructed in the second half of the fourteenth century by the town mayor Henryk Hitfeld and remained in the possession of the family into the start of the sixteenth century (Kluczwajd, 2010a). Wall paintings with religious subjects dating to the fifteenth century were also found in houses in the New Town, as at Królowej Jadwigi 9.

Written sources concerning the occupation of the inhabitants of the Old Town only survive from the end of the fourteenth century (Czacharowski,

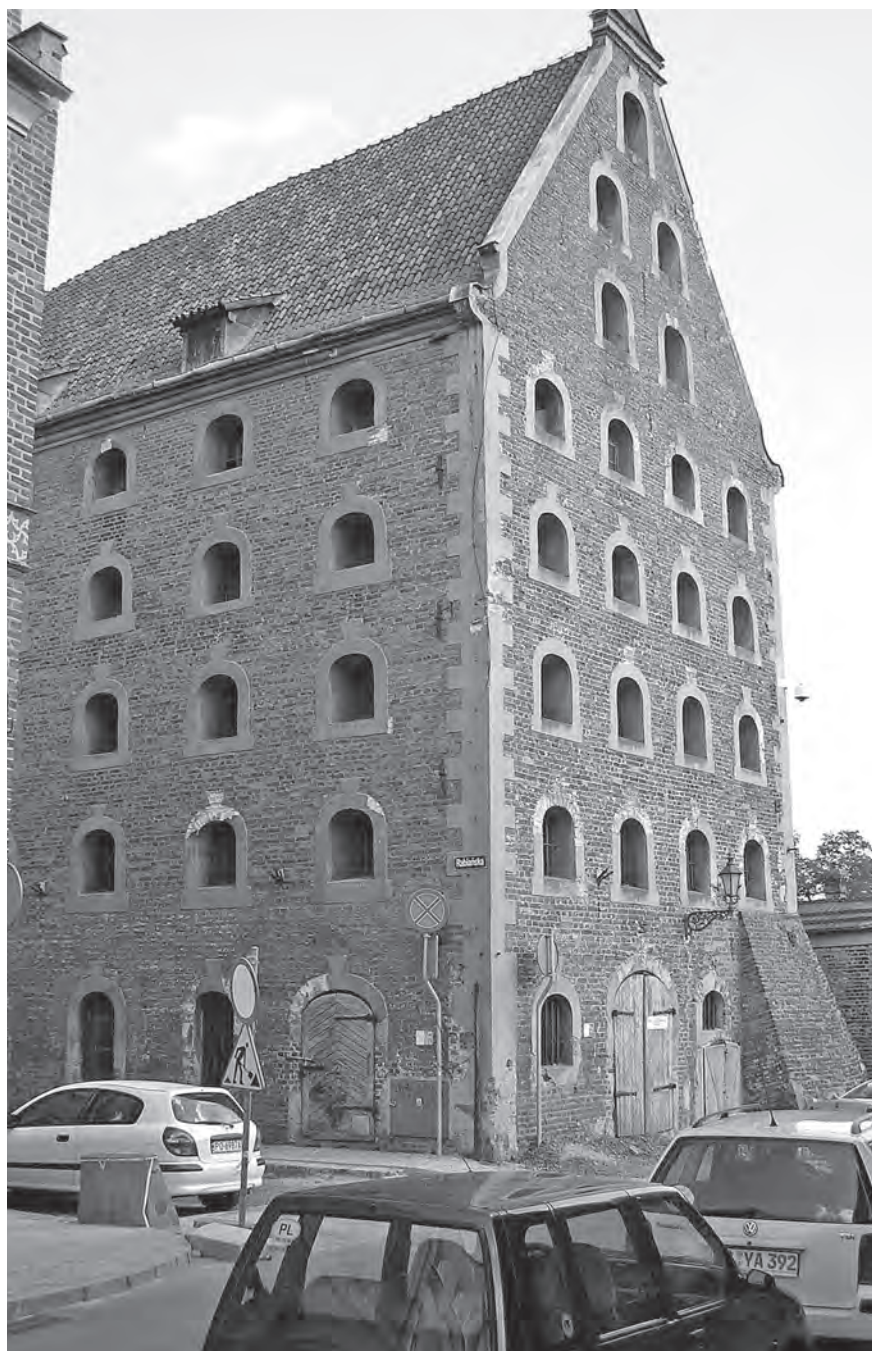


FIGURE 5.6 Former granary buildings on Piekary 2 in Toruń (Thorn)

1983, p. 49), where they are represented by extensive records of rents, poundage and other details which can be used to reconstruct the urban socio-topography; the most important being the scot books (i.e. a type of taxation record, from which the poor were specifically exempt) from 1394 and 1398 containing an index of 1,730 inhabitants from the Old Town and its suburbs, with their occupations. In 1398, the Order compiled a roster of burgesses providing military aid for an attack on the Vitalian Brotherhood in Gotland, with details of military duties sub-divided by relative wealth. The documents indicate that the higher proportion of inhabitants was involved in artisan activities rather than trade; a comparison of the two types of sources enabled the social spatial patterning of the town to be reconstructed, indicating that certain social groups and trades clustered. The most stable group consisted of patricians who clustered around the central market until at least the mid-fifteenth century. Merchant residences were also found in the wealthiest parts of the Old Town; along axial streets as well as the central market place, which included almost all of the town council and lawyers (Czacharowski, 1976). Excavations have clearly demonstrated the diversity of activities that developed from the late-thirteenth and into the fifteenth century. On *Szczytna* 11, part of a tailor's residence was excavated, with finds including large amounts of scrap leather. In excavations of a nineteenth-century building functioning as a store for artillery vehicles by *Rabiańska* 20, gothic walls, a timber-lined well and staved barrels probably used for smoking meat were uncovered. Those groups requiring a regular source of running water were particularly limited in location; ul. *Chełmińska* contained a cluster of inns and taverns, most likely sharing running water and brewing installations. The localisation of bakeries was prompted by safety concerns in the event of fire, and these were situated nearest to the town walls in *Piekary*, near the Old Thorn Gate (*Brama Starotoruńska*) and within *Franciszkańska*. These late medieval industrial quarters may have reflected the clustering of earlier activities, a notion that will only be confirmed with further archaeological investigation of medieval tenements. In some parts of the town, changes in areas of production are evident with new occupation phases; an early area for hornworking was given over to the Dominican monastery of St Nicholas (Polczyński, 1984). But by the fifteenth century, there is no clear patterning in trade areas, perhaps reflecting the growth of suburban industrial activities.

A circuit of walls surrounded both towns and linked up with the Order's castle, however both were physically segregated throughout the fourteenth century. In 2009, on *Szeroka* Street, fragments of a gothic brick wall were uncovered, most likely the remains of the New Town gate that was dismantled in the mid-fifteenth century. It had been linked to the Old Town's eastern gate by a bridge over the *Struga Toruńska* which the Order had diverted to supply water to the town, the remains of which were also uncovered. The southern side of the town contains the best-preserved section of the wall, although much has been restored and stabilised. The wall was punctuated by a series of towers and gatehouses of varying shapes and sizes. The earliest standing remains are a

concentric tower and part of the eastern wall of the Old Town referred to as the 'cat's muzzle'; the earliest fabric from the tower most likely dates to the mid-thirteenth century, although most of the tower was rebuilt from the sixteenth century (Figure 5.7). On the south-western corner is the 'crooked tower', built in the second half of the thirteenth century, which began to subside in the seventeenth century, probably due to the instability of its sandy foundations and changes in the local water table (Frycz, 1978b) (Figure 5.8). The town walls did not confine the growing urban population which sprawled into extramural suburbs. These were populated by artisans, gardeners, merchants and even knights. As in the main towns, the suburbs concentrated various types of industrial activities: belt-makers workshops were located near the Pauline bridge, whilst saddlers and purse-makers were situated around *Szczytna*. The banks between the Vistula and the walls were occupied by groups working at the portside: sailors, porters, carpenters and fishermen. This was the site of granaries, a tavern providing both hospitality and a place for organising trade, and two bath houses were also located here. Other suburbs contained brick-yards, butchers' shops and gardens owned by town patricians. On the road to Kulm outside the northern walls of Thorn, settlement developed to the extent that two churches were constructed here (St Laurence and St George) as well as a leper hospital. This area was populated by various artisans, merchants and even some wealthier families (Czacharowski, 1983, p. 65). In terms of ethnic composition, it is interesting to note that many inhabitants of the fourteenth-century suburbs, as well as some local toponyms, have Polish names, although



FIGURE 5.7 Cat's muzzle in Toruń (Thorn)



FIGURE 5.8 Crooked tower in Toruń (Thorn)

German-speakers dominated the urban population. By 1380, it is possible to speak of Thorn as a European centre of artistic production, closely linked to the circle of painters operating in Prague, with sponsorship from the local clergy promoting representations with multiple levels of theological and didactic meaning (Domasłowski, 2010, p. 125). The town has the largest surviving group of late medieval wall paintings decorating burghers' houses in modern Poland, which attest not only to the skill of the local workshops, but also the wealth and devotional needs of the burghers (*ibid.*, p. 136).

Danzig (Gdańsk): a town in transition

When the Teutonic Order annexed Pomerania in 1309, it acquired a series of existing towns which it later redeveloped. The most important of these and the former ducal capital of the region was Gdańsk, which was partially destroyed by the Order's armies in 1308. The town quickly recovered and became the Order's primary gateway to the trade networks of the Baltic. Gdańsk has seen

decades of excavations and is extremely well known from both a historical and archaeological perspective, although much of what is standing today within the historic centre was rebuilt after the Second World War. By 2000, an area of around 40,000m² had been excavated in Gdańsk, focusing on the Old Town and adjacent stronghold, Granary Island, the Old Suburb and Main Town. Many archaeologists have been involved in leading these excavations, but the most influential, particularly in disseminating the results of archaeological investigation to international audiences, has been Henryk Paner, the director of the city's archaeology museum from 1991.

The early trading centre

Gdańsk was a well-established town, port and seat of power at the time it was annexed by the Order. Archaeological investigations in the early 1970s revealed a proto-urban settlement near the confluence of the Rivers Motława and Vistula dating to the mid-ninth century, around 4½km from the Baltic coast. There is evidence for metalworking and hornworking, and the inhabitants were also involved in various agrarian activities and fishing; recovered boats were built for use on rivers and the sea. The elite were located in hilltop settlements (e.g. Sopot) or between marshes (e.g. Chmielno), and silver hoards have also been found attesting to the accumulation of wealth. Excavations under the town hall in the Main Town revealed wooden structures that included dendrochronological dates of 901 and 932 (Paner, 1998–1999, p. 112). In c.980, there were traces of amber- and silverworking, non-ferrous metalworking of copper, bronze, tin and lead, as well as a range of timber-based craft activities and evidence for potters, tanners, cobblers and hornworkers. An elite residence was fortified and segregated from the rest of the settlement – largely small fishermen's houses with a single room associated with low value metal objects – although the complex contained the workshops of skilled craftsmen and the presence of a stable was identified by a substantial layer of horse dung. This stronghold has often been attributed to the actions of Mieszko I, who conquered Pomerania at this time, and it would continue to be rebuilt and occupied into the fourteenth century; 17 occupation levels have been identified dating from the end of tenth century to 1308. One of the highest concentrations of buildings was discovered in the fishing and artisan district, where 137 dwellings dating from the late-tenth to early-fourteenth century were uncovered, of which 90 per cent were built from logs with bark still attached, with gaps between beams filled with moss. Lower beams were secured in place behind wooden pegs driven into the ground. Log houses from the tenth to eleventh century are larger than those dating to the twelfth to thirteenth century, with wider spaces between properties, clear doorways and hearths, most likely covered by thatched roofs (Paner, 2001).

Settlements in the immediate hinterland were concerned with provisioning, engaged in farming and animal husbandry with hunting playing a minor role. From the tenth to twelfth century, a fortified settlement replaced the older

ninth-century settlement with little evidence of refuse or animal manure. It was surrounded by a timber and earth embankment and supplied with wooden wharves. In 997, Bishop Adalbert (the later saint) visited what his biographer described as *Gyddanycz Urbs* on a mission to convert the inhabitants. An excavated wooden cross in a fisherman's hut has been linked to this first documented phase of Christianisation, which was otherwise a general failure (Paner, 1998–1999, p. 97). Polish political control over Pomerania was equally tenuous and, following Mieszko's conquest, was not reinstated until Casimir 'the Restorer's' war in 1046–1047, and again in 1090–1091, following a 'pagan reaction' from the Pomeranians in the 1060s; Władysław Herman's war against Pomerania coinciding with destruction layers in the fishing/artisan district, the elite residence and part of the fortified stronghold in Gdańsk. Finally, the conquest of Bolesław III imposed Polish rule c.1120 and installed a royal official in the rebuilt stronghold (ibid., p. 98). This marked a new phase in the development of the town.

The ducal town

The lords of Gdańsk became increasingly confident from the second half of the twelfth century; the residence of the self-styled 'dukes' or *principes* of Pomerania is referred to as *castrum* with *castrenses*, with references in the thirteenth century to chamberlains, castellans and judges, masters of the hunt, cup bearers and *milites*. The rebuilt stronghold continued to be associated with a fishing community, whilst artisans were largely relocated to a new district (the Main Town) surrounded by defensive ramparts. Smaller houses of more than one storey began to be constructed. The construction of the church of St Nicholas in the central market can be dated to the end of the twelfth century and represents ducal sponsorship of Christian infrastructure, and a more sustained attempt at religious conversion. The stronghold also possessed its own chapel and church (Paner, 1997, pp. 277–279). In the Old Town, an artisan and trading settlement is evident by the 1230s in the vicinity of St Catherine's church, although traces of occupation dating to the eleventh and twelfth centuries have been identified in the vicinity of the 'Great Mill' (Paner, 1998–1999, p. 110). Moreover, excavations revealed an early Romanesque church and cemetery underneath this later church of at a depth of 4m, with ceramics from the tenth to twelfth century and burials in wooden coffins (Zbierski, 2003, p. 404). The proliferation of Christian institutions included the foundation of monasteries nearby; in 1188, a Cistercian house at Oliwa, then the Knights of St John in Starogard, in the early-thirteenth century, the Benedictine house of St Adalbert and, in 1227, the Dominicans from Cracow were granted St Nicholas' church. Excavations in the area of the Dominican monastery uncovered the largest inhumation cemetery excavated to date in Gdańsk, with 553 burials identified (Krzywdziński, 2006).

Trade with the Polish state intensified in the twelfth and thirteenth centuries and, from the mid-1220s, merchants from Lübeck became involved,

culminating in the granting of town rights under the Lübeck Law in 1260 (Paner, 1997, p. 277). This coincided with the appearance of professional workshops where finished commodities, raw materials, wasters as well as product blanks and tools have been recovered during excavations (Paner, 2006, p. 426). Ethnic diversity becomes increasingly evident. Groups of incoming settlers referred to as *coloni* and *hospites* were predominantly Germans, but even Prussians are recorded in 1271 (Paner, 2008, p. 529). Archaeologically, this diversity is evident from the changing material culture over the course of the twelfth century. From the mid-twelfth century, the church of St Catherine was functioning as the burial place for German colonists who had established their own district in the vicinity by the 1220s, and may have been buried in the Dominican cemetery (Krzywdziński, 2006, p. 31). Incoming German merchants brought new trends in housing, favouring oak beam super-structures and brick, whilst houses and streets are 4.5m from each other, suggesting the use of a standardised location rod when instituting the new town law. These buildings, almost certainly the houses of patricians representing the emerging, self-governing civic authority, had huge grooved oak beams, multiple rooms and separate kitchens, stairs and brick hearths. New greyware and stoneware appear, as well as hand-painted glass vessels (originally Persian), new types of footwear and other forms of material culture associated with the German community. By the end of the thirteenth century, the Slavic and German mercantile community of Gdańsk had become powerful, and the town dominated regional trade. In 1298, a *palatium* was built after a grant by the Polish King Ladislas the Short, where merchants could store goods and hear criminal and civil cases. The first town hall, a building of at least two storeys, was particularly prominent and the new layout levelled the tenth- to twelfth-century defensive wall. The remnants of house 3 consisted of 30cm-thick brick walls surviving up to a height of 110cm, large beams and floor tiles decorated with dark-green glaze (Zbierski, 1976). By the end of the thirteenth century, merchants from Lübeck had established a trading office functioning as a storage depot and meeting house (Paner, 1999, p. 394).

The importance of the harbour is indicated by the waterfront constructions excavated in a number of sites close to the stronghold on the banks of the Motława, dating from the tenth to thirteenth century, with tentative evidence for the use of the Granary Island in the thirteenth century. There is extensive evidence for long-distance trade represented by Danish, English, Czech, Hungarian and German coins from the eleventh century and, later, Polish coins. The main commodities exported from the twelfth century were grain, salt, fish, leather, amber, iron and timber (*ibid.*, p. 389). At this time, there is evidence for the standardisation of metal and amber commodities as mass production for a wider market began to replace individual commissions; from the mid-twelfth century, bronze goods were produced locally. Imports were diverse; limestone and marble were imported from quarries in southern Poland in the thirteenth century, beads of pink Volhynian slate are known

from the twelfth and thirteenth centuries, and fragments of Rus' vessels used to transport wine have also been reported (ibid., p. 392). Large quantities of discarded copper wire have been found, sourced from German or Scandinavian mines and, from the thirteenth century, Slovakia or Hungary, as well as lead from Poland and tin from Cornwall. In the thirteenth century, ceramics imported from Germany are known but only make up a small percentage of the total urban assemblage, and include *Kugeltopf* vessels and early stonewares (*Faststeinzeug*) along with southern Scandinavian glazed wares (ibid., p. 392). There is archaeological evidence for the production and use of woollen textiles of varying thickness, including felted fabrics, whilst Byzantine and Persian silks are evident from the twelfth century. The growing conurbation produced significant amounts of waste. Excavations at U Furty Street in the north of the Main Town revealed this area was used as a rubbish dump in the thirteenth century; in the mid-thirteenth century, a defensive wall was built here with a small street running alongside it, although no buildings were added before the seventeenth century (Paner, 1997, p. 284).

Gdańsk, as a developing urban centre, contained all the features that are subsequently found in the planted towns. By the start of the twelfth century, the rebuilding of the settlement saw a permanent street pattern mapped out with regularly shaped plots and street surfaces consolidated with timber. Wooden roads, mostly constructed from solid logs, are in some cases represented by over a dozen consecutive layers dating from the tenth to early-fourteenth century. Latrines in the stronghold date from the eleventh/twelfth century, consisting of small, oval cess pits shored with planks or wattle screens; waste may have been carried away in timber-lined gutters, evident from the thirteenth century. By the start of the fourteenth century, latrines consisted of square or rectangular timber-built constructions, sometimes using barrels; both single and double cess pits have been uncovered, where one may have served as a settling tank. These were situated in the backs of properties or where a plot bordered the River Motława. Waste was flushed into this waterway which was not used for drinking water (Paner, 2004b, p. 325). The town also had a mint from the thirteenth century, as evidenced by a record of two minters, a recovered part of a coin die for making bracteates and a hoard of bracteates modelled on late-twelfth-century coins from Brandenburg. This, the character of the stronghold and the sponsorship of religious institutions, particularly monasteries, reflects the political aspirations of the self-styled Pomeranian dukes. Tensions between Pomerania and Brandenburg resulted in the brief occupation of Gdańsk which destroyed part of the stronghold in 1272. The Margrave's forces would occupy Gdańsk again in 1308, which ultimately led to the plea from the loyalist garrison to the Teutonic Order to restore royal authority. These tumultuous events marked a new era in the development of the town.

The Order's town

In 1308, the Teutonic Order partly destroyed the town and massacred the population during a siege aimed at removing Brandenburgian political control. Excavations revealed the castle and parts of the built-up area on the right bank of the Vistula were severely damaged by fire at this time (Paner, 1997, p. 282). Traces of the fire which affected the stronghold were also found in the church of St Nicholas, in the subterranean chapel and under the town hall in the Main Town as well as under the Artus court (Zbierski, 2003, p. 417). The Order subsequently acquired the town (and Pomerania) following a treaty with the Brandenburgian Margrave Waldemar. Within decades the town had been rebuilt and reorganised under the Kulm Law leaving significant archaeological traces separating early and late medieval phases (Figure 5.9). The Order's programme of urban renewal focused on the Main Town (granted the Kulm Law in 1343), representing a deliberate emphasis on the existing trading district, and a new suburb – the *nova civitas* – was founded to the east where, in 1352, the church of St John was built. Excavations revealed how parts of the Main Town were situated on boggy terrain, accounting for the relatively limited occupation before the thirteenth century, and it was only at the end of the fourteenth century that levelling and raising the ground level facilitated more intensive settlement (Paner, 2004a). The Order reorganised the internal street grid and a number of new thoroughfares appeared, corresponding to the rising volume of trade and traffic (Możejko *et al.*, 2006, p. 164). Road surfaces became correspondingly stronger with thicker and more closely fitted logs, as revealed in excavations in the Granary Island where the remains of two street levels from the fourteenth and fifteenth centuries have been found. With dimensions of 13m long and 4m wide, they consisted of closely fitted boards laid on top of rectangular beams. Cobbled road surfaces were also introduced, often with stone gutters (Paner, 2004b, p. 325). A brick wall was built around the Main Town, segregating the urban space from certain activities which took place beyond its bounds. This included the execution of common criminals and, in 1331, the Order granted the town butchers a plot of land outside the walls on the bank of the Motława to build a slaughterhouse (*Kuttelhof*), where excavations revealed a large amount of cattle horns and skulls; a further slaughterhouse was located in the southern outskirts (*ibid.*, p. 340).

The Old Town saw comparatively less development. The earlier Slavic settlement here, along with the church of St Catherine, persisted into the fifteenth century. The Order's documents refer to *Dy Polene* in the Old Town and the locality of Osiek (Hackelwerk), where fishermen from the stronghold district were resettled. They provided the Order's castle with certain species of fish including sturgeon, trout, salmon and herring, continuing earlier ducal traditions. There were more significant modifications in the urban landscape of the Old Town, such as the 'Great Mill', built in the mid-fourteenth century on an island situated within a newly constructed canal. This stood on the

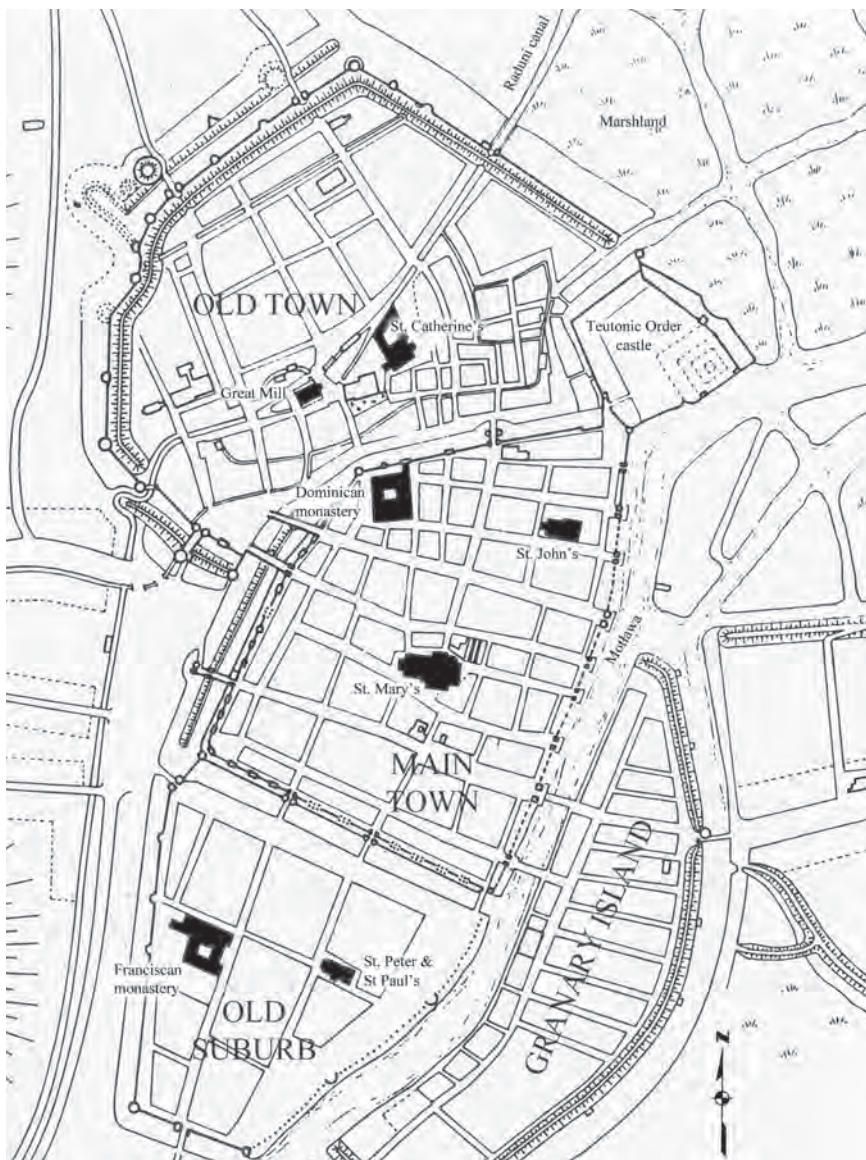


FIGURE 5.9 Plan of medieval Danzig (Gdańsk) showing the relationship between the main districts: the Old Town (Stare miasto), the Main Town (Główne miasto), the Teutonic Order's castle in the north-western corner (Zamek krzyżacki), the Granary Island (Wyspa spichrzów) and the Old Suburb in the south (Stare przedmieście) (aft. Hermann, 2010)

levelled remains of thirteenth- and early-fourteenth-century streets and dwellings (Paner, 1998–1999, p. 110). The canal had diverted the River Radunia to supply drinking water and power the 18 millstones within the ‘Great Mill’, as well as other structures in the Old Town and, in the fourteenth and fifteenth centuries, timber pipes were laid to channel water to increasing numbers of wells around Gdańsk (Paner, 2004b, p. 323). The Order’s level of control over building works, especially concerning important institutions, is evident in the documentary sources which provide details of what was expected and what was permissible. For example, in 1384, Grand Master Konrad Zöllner renewed privileges granted to the Dominicans in the town, but included a demand for building a wall in the eastern, western and northern part of their precinct. This was one way of separating the property owned by the town from that of the monastery and the Dominicans were also encouraged to build a two-storey square tower in the town walls to use as a latrine. The document included specifications concerning towers and streets associated with the monastic complex. A later Grand Master decided this would not in fact benefit the town and the monks were able to construct the latrine tower within their own complex (Możejko *et al.*, 2006, p. 165).

Changes in architectural and ceramic styles on the other hand can be understood as a long-term development. Greyware in the late-thirteenth and early-fourteenth centuries is typically associated with areas settled by German colonists, where it represented around 75 per cent of the ceramic assemblage, with relatively little in the Slav-dominated Old Town (3.7 per cent) until 1320–1350 when it reaches around 48 per cent, and even less in the fishing district of Osiek (1.6 per cent) where greyware representation increases to around 13 per cent only in the last decades of the fourteenth century (Kruppé, 1981, pp. 102–103). This chronologically and topographically varied distribution of greyware has been interpreted as the gradual diffusion of German culture throughout the town. In terms of urban architecture, the main change took place from the mid-thirteenth century to early-fifteenth century, where earlier, log-built structures were gradually replaced by timber-framed buildings, filled with daub and later brick panels. The use of brick became more common with sponsorship from religious institutions, such as the Cistercians and Dominicans. Houses eventually began to be built in terraces, each sharing a common wall with the neighbouring property; narrow passages were left between properties to serve as drainage channels and to safeguard against the spread of fire. The high water-table meant houses had to be constructed on timber piles driven into the ground at intervals or packed tightly. In the case of the former, arches were raised between piers to support walls, or stone foundations were laid on top of piles upon which bricks were laid. Walls made entirely of brick did not appear until the late-fourteenth century. The interiors were fairly typical of medieval urban tenements with a residential area occupying the ground floor, a kitchen with a brick stove at the back with openings in the ceiling and roof for smoke; chimney flues were later added inside the walls. The marshy ground meant that

cellars, supported by vaults, were relatively shallow, often less than a metre and no more than 1.2m deep, whilst the first floor was also used for storage (Paner, 2001, p. 501). Roofs, forming triangular gables, were either thatched with straw or rushes until the mid-fifteenth century, at which point this flammable material was banned, along with the use of timber (Paner, 2001). In the fifteenth century, street-facing windows were sometimes separated by vertical piers made of moulded brick, c.60cm wide. These extended from the lowest storey and met near the top of the facade in a pointed arch, creating deep recesses for the windows and visually dividing buildings into two to four vertical sections. Whilst the surviving urban fabric of early-fourteenth-century Gdańsk may have been somewhat eclectic, a mosaic of the new alongside the old, the partial destruction of the ducal stronghold provided the Order with the opportunity to build something not seen before in the Pomeranian town, but by now very familiar in the Prussian landscape – a conventual castle.

The Order's castle has effectively vanished from the landscape of modern Gdańsk but, in the mid-fourteenth century, it represented a potent and visible symbol of the new regime (for a more detailed description of this complex see also chapter 4). The castle began to be constructed on the site of the former stronghold in 1340, as suggested by dendrochronological analysis of the associated rampart's timber features which indicated the earlier earthworks had been used and repaired until the Order's castle was finished (Paner, 1997, p. 238). The castle was connected to the town by a wooden bridge, the remains of which were found in excavations on Sukiennicza Street on the eastern side of the stronghold, and dated from the fourteenth to seventeenth century (Paner, 2004b, p. 327). The town's gates were linked to bridges crossing the moat, part of major hydrological modifications associated with the development of the castle complex. The Order's authority was also expressed in other ways; a significant quantity of its coins has been discovered within Gdańsk and it is clear the Knights maintained an exclusive monopoly over minting (Paner, 1999, p. 388; see also chapters 3 and 4).

If the Order controlled the renewed layout and rhythms of life within the town, they encouraged trade to flourish and this, in turn, consolidated an already wealthy and politically active civic elite. In the thirteenth century, Gdańsk had four town halls, the Main and Old Town hall, the young city hall and the Osiek town hall; the last two were abolished in the mid-fifteenth century. The Old Town retained its municipal autonomy to an extent and thus conserved its town hall, but its council was subordinated to the Main Town council. Here the town hall was built in the second half of the fourteenth century and remodelled several times, most significantly in the sixteenth century. It contained winter and summer council rooms, reception rooms and a set of scales. Since the Kulm Law required judicial activities to be performed by a separate body – the bench – this prompted the building of a special meeting room. The old superstructure of first floor was demolished and two new brick storeys added, situating the council on the first floor and benchers on the second. In the second half of the fourteenth

century, the council ordered the building to be extended. The council's chamber was raised in height, at which point the tower was probably added (Bogucka, 1997). The judicial bench in Gdańsk only had jurisdiction over the residents; the Order was responsible for policing beyond the town's boundaries. By 1380, there was a pillory in front of the town hall and prisons in the Main Town and the Order's castle, whilst the town wall gatehouses and towers contained dungeons (Paner, 2004b, p. 335).

The Teutonic Order visibly introduced a new expression of Christian authority (Pac, 2003; see also chapter 6), whilst the growing power of the urban elite was also represented by the sponsorship of churches (Figure 5.10). In fact the actual contributions and identity of the sponsors, including examples of co-sponsorship, remain largely obscure. The councillors of the Main Town particularly dominated the parish church of St Mary where many were buried, although very few grave slabs have survived (Jurkowlanec, 2010, p. 219). Construction on the church started from the mid-fourteenth century and continued for almost 160 years (see also chapter 6), whilst the church of St John was constructed from 1358 and St Peter from 1397. Alongside churches came the proliferation of literary culture. One of the first libraries was situated in the Order's castle and, at the end of the fourteenth century, St Mary's church library was opened to the public. Subsequently, other churches allowed public access and, by the end of the fifteenth century, there were at least two bookstalls in the centre of the town (Paner, 2004b, p. 338). Religious institutions invested in hospital construction in the fourteenth and fifteenth centuries; four were leper hospitals, five were for pilgrims and travellers and one was



FIGURE 5.10 The historic centre of Gdańsk (Danzig), view from the south, showing the medieval Main Town's parish church of St Mary dominating the skyline

exclusively for sailors. The first pharmacy was set up in the mid-fifteenth century when there is also archaeological evidence for stoneware apothecary's jars and Mauritanian lusterware (*ibid.*, p. 331).

Written sources attest to the extensive international contacts developed by the town's merchant community in the second half of the fourteenth century, particularly with German and Dutch towns. An English colony was established in the town in the 1390s; by 1422, there were 55 resident families largely involved in the textile trade, as well as buying ships and timber (Paner, 1999, p. 395). The purchasing power of the town's elite is also evident in the extensive range of imports recovered during excavations from around Gdańsk. Glass tableware appears in bulk only from the fourteenth century, whilst most fifteenth-century glassware is imported from western Europe; window glass also appears in the archaeological record of the town from the fifteenth century (Paner, 2006, p. 419). From the mid-fourteenth century, stoneware from Siegburg is evident and stonewares overall make up to 30 per cent of the ceramic remains at sites in Gdańsk, becoming the most popular type imported during the Order's period. This trend can be linked to the participation of the urban elite in the Hanseatic network (Paner, 1999, p. 392; Gaimster, 2005, 2011). Masonry stone from Scandinavia, particularly Gotlandic limestone already referred above in the context of Elbing and Marienburg, became increasingly imported from the fourteenth century and was used in major building works such as the monastery of nearby Oliwa.

The development of the riverside area was equally stimulated by the rising volume of trade. This prompted the construction of new portside warehouses, particularly on the so-called Granary Island. The island has remained largely derelict since the Second World War, although the buildings here were regularly destroyed by fires and conflicts; only one historic granary building survives today. Granaries are built here in large numbers from the mid-fourteenth century, although there are examples of earlier, thirteenth-century structures. In the fourteenth century, 130 granaries are documented alongside a civic court, ash yard, pitch yard and stores for timber and other goods and, despite a devastating fire in 1424, the district was quickly rebuilt and, by the early-sixteenth century, there were 340 buildings on the island. Excavations here have been extensive and a significant assemblage of carpentry tools from the first half of the fifteenth century was recovered during excavations on Motławska 1, probably the site of specialist joinery workshops servicing wharves, sailing vessels and granaries. A hoard of mid-fourteenth-century Swedish bracteates (Magnus II Erriksson) has also been found here, the only known example of such a deposit from modern Poland (Paner, 1999, p. 388).

Related to the increase in international trade was the development of ship-building. In 2000, excavations in the vicinity of the Green Gate uncovered the remains of the Motława's waterfront and the wreck of a flat-bottomed ship, measuring around 20m long and 3m wide and dated by dendrochronology to 1331–1332. The presence of silver coins issued between 1364 and 1380 gave a

terminus post quem for the ship's sinking. This provided the earliest evidence that ships designed for use on inland waterways were built in the Lastadia shipyard in the town, first documented from 1363 (Paner, 2006, p. 422) and corresponding to a marked increase in trade and river traffic on the lower Vistula (Ossowski & Kościński, 2003). The shipyard industry developed significantly in the fourteenth and fifteenth centuries, as reflected by an abundance of recovered artefacts relating to shipbuilding, including tools, nails, spoon augers for drilling, rivets and sintels. Indeed, the largest collections of wood working tools from the fifteenth and sixteenth centuries have been uncovered in the shipyard. At least two types of hull construction were evident at the Lastadia site, represented by 1,000 rivets used in the overlapping planks of clinker-built vessels, and 1,000 sintels, which secured wooden laths holding caulking in place between the strakes of a carvel-built hull. Caulking materials such as moss and rope made from animal hair soaked in pitch were also recovered, along with hemp rope used as sail tack. Less well known than the shipyard, as it remains largely unpublished, is the so-called 'Copper Wreck' (*Miedziowiec*) dated by dendrochronology to the end of the fourteenth century. This clinker-built vessel, excavated in the early 1970s, sank off the coast of Gdańsk carrying a cargo of Hungarian copper ingots, iron bars, pitch and timber stored in oak barrels. Traces of garlic and onion were also preserved within the waterlogged structure (Paner, 1999, p. 396).

Although specialist and mass-produced commodities had been produced in Gdańsk before the Order's arrival, the number of trades diversified significantly in the fourteenth century. From the fourteenth century, there is evidence of smelting furnaces in the Old Town (Kowalska Street), and the development of knife making as a distinct craft identified by stamped maker's marks, with many new types of knife, sword and dagger being manufactured at this time, although the production of swords and other forms of metalworking would not become specialised here until the sixteenth century (Paner, 2006, p. 430). In 1357–1389, nine goldsmiths' workshops are recorded in the Main Town, and a further one in the Old Town and 'Young Town'; this number had increased to 24 by 1416, although the actual number of gold and silver items excavated from these areas remains very small (*ibid.*, p. 433). More commonly found are items from brass and pewter designed to emulate higher-status jewellery and dress accessories, with gemstones replaced by glass and representing an aspiring and socially stratified urban market (Paner, 2008, p. 539). By the fifteenth century, there was a division between the manufactures of woollen and linen textiles, and the increased quantities of livestock brought in on the hoof and converted into deadstock supplied connected industries with bone, hide and horn.

The Teutonic Order sought to maintain control over the town complex into the mid-fifteenth century through various regulations, but ultimately late-medieval Danzig would play an important role in overthrowing its rule through participation in the Prussian League. Together with Thorn, Elbing,

Kulm and Königsberg, it represented a key trading centre at the top of the urban hierarchy within the Order's state, involved in long-distance trade and mass production.

Smaller fortified towns

The overwhelming majority of towns in medieval Prussia were quite small, amounting to no more than ten hectares in size. These settlements concentrated artisans working predominantly with local markets and within the Prussian interior they represented important bases for the colonisation and development of the countryside. At the same time they played no significant role in the politics of the Order's state until the fifteenth century, and their function was effectively subordinated to the commandery system (Czaja, 2009, pp. 182, 185, 195). The process of urbanisation noticeably developed after the end of the Prussian Crusade, and in Pomerania following a break of around three decades after the region's annexation. The location of these towns was sometimes linked to regional trade routes, as at Gilgenburg (Dąbrówno), situated on the route leading to Masovia from the north. In many cases, these settlements grew up in close proximity to a castle or official residence. A typical example can be seen with Allenstein (Olsztyn). The town was founded by the Ermland Chapter in 1353, with settlers encouraged by locator Johann of Leysen. The town was established on the existing trunk of a former settlement and took its name from the River Alna. Its plan followed a rectilinear grid which has been preserved until now; similar plans can be seen in a number of other towns (Figure 5.11). It is possible these all derived from a generic template of a town plan and may even have been the work of same group of urban planners. In Allenstein, a modification of the 'Kulm foot' was used and analysis of the spatial layout indicates the town plan was demarcated on a geometrical network with seven and ten rod sides (one rod = 15 feet) overlapping themselves. The depth of each plot was five to seven rods, subordinated to the warp of the grid. The town consisted of two ranges of buildings situated along the longitudinal sides of the marketplace and extending beyond its limits. The plan emphasised particular buildings: the parish church, hospital, city walls and castle. The town never functioned as the outer bailey of the castle, although both were integrated into a cohesive defence circuit. The town walls were only built at end of the fourteenth century; from the north-east the urban area was surrounded by a ditch filled with water from the River Lyna and nearby lake. When the town was enlarged in 1378, the ditch was filled in and the extended built-up area re-fortified with a new ditch. At the start of the fifteenth century, this was surrounded by defensive walls which had circular, closed and square (open) towers situated every 50m, punctuated by two gates, of which the so-called 'Upper Gate' is still standing. The hospital and its chapel of the Holy Ghost are documented as being located by the Lower Gate in 1452, whilst a second hospital was built outside the town walls at the end of the fifteenth century

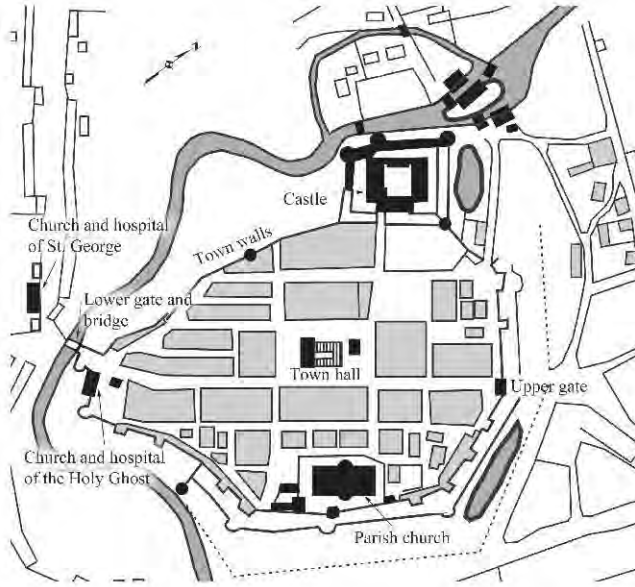


FIGURE 5.11 Plan of medieval Allenstein (Olsztyn) (aft. S. Mojzych-Rudowski in Strumiński, 1972)

(Strumiński, 1972). Allenstein was an episcopal town, but a similar approach to planning can be seen in many of the smaller towns in the Order's state.

In annexed Pomerania, a grid system based on multiples of two rods was consistently used for the layout of new towns (Betlejewska, 2004). At the site of Nowe Miasto Lubawskie, a castle named Jungburg was constructed in 1320, with a settlement developing most likely nearby. From 1325, the settlement was granted the Kulm Law by Otto of Luterberg (the penultimate commander of the Kulmerland). The town was called Nuvenmarkt and, from 1453, Neumarkt. Its layout was typical – the tenements and roads were planned on a grid system around a central market square, where a town hall would be constructed in the fifteenth century. In its southern part the River Drwęca (Drewenz) was channelled into moats dug across the west and north of the town. The town walls were punctuated with 23 square towers, whilst the corners were studded with larger, concentric towers. The town prospered due to its position on the border with Masovia until the fifteenth century, and would come under the control of the Polish crown in 1466.

As at Allenstein, the majority of towns in medieval Prussia had walls, fulfilling defensive functions and delineating the area governed by the founding law. At Eylau (Iława), the town walls were punctuated with nine towers and three gates. In the eastern side, there was a deep moat which has left traces in the landscape today. Whilst there was no castle in the town, the parish church was associated with a procurator's residence. Little information survives about

the town in the written sources, except that it was targeted by both Poles and the Order during the wars of the fifteenth century. Bishops founded a spate of similar towns, few of which have preserved medieval fabric and have only had incidental archaeological explorations. At Kisielice (Freystadt), the only part of the town wall has survived near the church, likewise at Prabuty (Riesenburg) a single gatehouse, parts of the town walls, the co-cathedral and church from the end of the fourteenth century and the lower walls of the bishop's castle have survived and been uncovered through excavation. At Nidzica (Neidenburg), the town walls stood at over 5m tall, punctuated with tall towers. The most heavily fortified part was situated next to the castle in the eastern part of the town. Here, an 11m tall tower was constructed with 2.5m thick walls and the eastern wall alone had nine towers. In the north-east, a brick building called the *magazyn* (warehouse) has survived to this day with its own *Dansker* tower, constructed at the same time as the castle. There was also a complex of multi-storey buildings in this district with an unknown function. The town plan remains relatively well preserved today with medieval fabric from the walls and towers visible in various places. The castle, constructed from brick and stone in rectangular form was the residence of a procurator. The castle chapel was situated above the gatehouse, as well as the guest residence and procurator's chamber. The western wing was similar, consisting of a single storey with cellars, two refectories and a chapel. Attached to this was an outer bailey which was rebuilt in the sixteenth century.

Relatively little is known of the early phase of these urban colonies, but it is important to note the difference between the beginning of a settlement during its initial phase of colonisation and the foundation of the subsequent town as documented in the charters and represented by later standing buildings. For example, at Lidzbark Welski (Lautenburg), the oldest phase of the colony has been dated to the second quarter of the fourteenth century, whilst the town obtained its rights between 1326 and 1331. The earliest fortified settlement here was established on the hill overlooking the nearby lake, although no evidence of the suspected Prussian stronghold was discovered during excavations in the vicinity of the parish church of St Mary. The first church here was wooden, perhaps represented by the burnt timbers found during excavations, as well as part of the associated cemetery with the earliest grave fills containing fragments of greyware and Teutonic Order coins. The settlement itself was represented by a large assemblage of ceramics dating from the fourteenth and sixteenth centuries, and had been replaced by a church in the eighteenth century. Part of a burned palisade was discovered nearby, again associated with late medieval ceramics (Grążawski, 2002). It appears that many new towns in Prussia began as largely timber-based settlements which were rebuilt from more durable materials in a subsequent phase, a process that can be related to the development of relatively wealthy urban communities.

Life in the urban colonies

Decades of excavations in the towns of the Teutonic Order in Prussia and Pomerania have yielded vast quantities of artefacts, clearly demonstrating extensive participation in international trade dominated by the Hanse, as well as the marked social stratification that developed within these urban populations. Virtually every material is well represented: metal, ceramics, glass, stone, brick and, due to the waterlogged soil of towns such as Elbląg and Gdańsk, a bewildering array of organic remains have survived including wood, plant remains, bones, leather, fur, hair and even wax. Striking and rare examples include a number of intact musical instruments recovered from excavations in Elbląg, such as a fourteenth-century fiddle (a similar example has been recovered from Płock), a mid-fifteenth-century gittern and finished wooden flutes dating to the fifteenth and sixteenth centuries (Nawroński & Popławska, 1997). The most abundant assemblages have been found in latrines situated within tenements, although these mostly date from the end of the fourteenth century or later and in some cases they were cleaned and re-used in the sixteenth and seventeenth centuries. Each plot had between one and four latrines usually situated at boundary walls, at the rear wall of the house or in outbuildings. In the case of Elbląg, where these structures date from the late-fourteenth century, excavations demonstrated these locations deviated from the specifications laid down in the Lübeck Law. The constraints of space within the increasingly built-up urban area resulted in wells and latrines being situated close to each other which facilitated the spreading of disease, a problem civic authorities sought to tackle (Nawrońska, 2004, pp. 317–318).

The material culture of urban Prussia also demonstrates its colonising character. From the very beginning, these towns were planted or re-established settlements, dominated by incoming German and Polish colonists with little participations from the surviving Prussian population. This seems to be verified archaeologically by an absence of Baltic ceramic material within medieval urban contexts, although the association between ceramics and ethnicity is problematic in the post-Crusade period (see also chapter 3), and resident Prussians would have been completely assimilated into the colonising culture of the planted town. Within the towns, there is no evidence of segregation that marks the 'German quarters' noted, for example, in the Novgorod and London *Kontore* (Gaimster, 2011, p. 350). This is more pertinent research question for 'planted' German enclaves. In the case of medieval Turku, written sources imply a segregated community of German merchants, whilst the distribution of imported pottery points to more diffuse interaction and involvement, prompting an understanding of the town as more of a hybrid urban culture, rather than divided by ethnic quarters (Immonen, 2007). On the other hand, the situation is completely reversed in Novgorod, where the polarised distribution of western ceramics points to a deliberate rejection of the imported culture by the town's indigenous population (Gaimster, 2001). In Sambia, where

a significant proportion of the Prussian population survived and was subsequently and gradually assimilated, future archaeological research promises to shed completely novel light on the material aspects of this ethnic transformation. Within Prussian towns, socio-topography is more readily structured on the basis of wealth, activity and political authority. The most important political force within towns before the mid-fifteenth century was represented by the Order's convents, episcopal castles and the residences of lesser officials.

The urban community

The towns developed a socio-topography relatively quickly, as evident in the variety and complexity of structures. Brick buildings were reserved for the Order's castles, churches, monastic complexes, town halls and for wealthier merchants' houses. The internal social complexity of towns was also marked by the formation of guilds and fraternities, and the merchants of Thorn had already set up a guild in the second half of the thirteenth century (Czacharowski, 1983, p. 52). This urban social stratification, which is fully formed by the fourteenth century, is regularly linked to the medieval Prussian town as a contested political space, with the Order – represented by the physically segregated castle (yet simultaneously incorporated within the broader circuit of walls) – vying for control over the increasingly confident and independent town community, headed by an upwardly mobile patrician class. Castles preceded the foundations of towns or were constructed alongside them and usually incorporated within the defensive circuit of walls, whilst controlling access through the placement of outer baileys, gates and bridges leading into the main castle complex. The positioning of castles reinforced the political and military dominion of the Teutonic Order, although at the same time provided reassurances of security and stability, particularly in the early decades of town foundation. Control over the military and defensive aspects of the town was clearly outlined in the foundation charter, and it is evident the Order dictated the terms. At Elbing, for example, the town was forbidden from organising its southern defences where it connected with the castle; this was the sole responsibility of the commander (Haftka, 1999, p. 82). An equally important expression of authority was through the production of coins and, as discussed in chapters 3 and 4, the Order kept a strict control over minting. The primary mint of the *Ordensstaat* was in Thorn (functioning until 1454), but also in Elbing and Königsberg from the mid-thirteenth century; in the former in 1246 (confirmed in 1251), although excavations have only revealed small numbers of coins from the second half of the fourteenth century and the early-fifteenth century. The mint was closed by order of the Grand Master at the end of the fourteenth century (Nawrońska, 2004, p. 309). Danzig would only produce coins of the Grand Masters from the very end of the fourteenth century; the first coins issued by the town were shillings dating from 1425–1435 and it would only be granted the right to mint its own coins by the king of Poland in 1457 (Gumowski,

1990, p. 17; Paner, 2004b, p. 336). The relationship between the urban castles – the self-contained political elite of the *Ordensstaat* – and their associated towns will be better understood with further, comparative archaeological investigation of both.

The first phase of this civic independence is often linked to the construction of municipal buildings, particularly the *Rathaus* or town hall – the seat of the *Rat* or town council. A number of examples have been mentioned in the case studies above, however relatively little is known about their interior spaces where the ideology of its sponsors would have been most clearly represented. Only one cycle of medieval wall paintings decorating a town hall has survived – at Gdańsk, associated with the heraldic emblems of a noble family from Mecklenburg, the town and the Teutonic Order, and celebrating the conflict between the Order and the Bishop of Dorpat in 1397, who had been supported by Mecklenburg. A crucifixion scene was added c.1427 and later the cycle of paintings surviving in the ‘red hall’ was almost certainly sponsored by an increasingly powerful and confident town council (Domasłowski, 2010, p. 136). These patricians owned the most prestigious civic properties, held luxurious banquets and employed musicians, artists and artisans. The houses of known councillors have also yielded unique luxury commodities. For example, a pair of green horn-rimmed glasses dating to the first half of the fifteenth century was found on the plot belonging to Nicolas Vileype – a merchant, councillor, treasury administrator and one-time mayor of Elbing (Nawrońska, 2008, p. 518).

Alongside the town councils, a series of urban elite societies consisting of merchants and knights began to be formed in Prussian towns, often with St George or the legendary King Arthur as their patron. They represented the earliest guilds and met at special halls called ‘Artus courts’ (variously named, but typically as *Artushof* after Arthur) and were constructed in the main towns within the Order’s state, including Thorn, Marienburg, Elbing, Danzig and Königsberg (Figure 5.12). These were originally thought to be a regional phenomenon particular to Prussia but, in fact, are variations of a broader European trend. The functions of these buildings changed from practical centres of commerce to symbols of civic authority, in turn affecting their later architectural modification and decoration. Their earliest incarnations consisted of residences attached to merchants’ trading posts and company houses of foreign traders, providing them with secure and legal protection. They also functioned as working centres for trade, similar to Hanseatic *Kontore*, and were essential fixtures in the development of mercantile networks in medieval Prussia. The oldest of these outposts were timber-framed structures built on stone foundations as in Elbing and Danzig, or in brick as in Thorn. In the latter, the *Kompenhaus* was situated on Żeglarska Street which connected with the market square and had the widest plots in town; the structure itself was typical of the majority of tenement buildings found in the town, consisting of a double-bayed house with a peaked roof, although with a much larger yard and complex of service buildings. These buildings were not a homogenous group, and regional dissimilarities



FIGURE 5.12 A plate from Valencia, decorated in black and gold with Islamic motifs, recovered from excavations in Elbląg and tentatively dated to the fourteenth century (aft. Nawrońska, 2008)

reflect the importance of local social, political and economic contexts, as well as the aspirations of individual merchants (Pilecka, 2005).

In the fourteenth century, these buildings became mainly used for social meetings focused on the great hall situated on the ground floor. Different meeting houses appeared in towns used by various companies and fraternities, and the *Artushof* became a place for organising the business, life and communal identity of the major urban guilds. Their interior decoration is largely unknown, although fragments have survived in Elbląg and Toruń dating to the fourteenth century. In the *Artushof* of the latter, the union of the fraternity of the Blessed Virgin Mary with the brotherhood of St George in 1385 can be linked to the decoration of the residence with a scene of the saint fighting the dragon (Domaśłowski, 2010, p. 136). Along with the appearance of cloth halls and the town hall complex, these guild houses represented the growth of the mercantile community and the transformation of the major Prussian towns from the Order's colonies to conurbations with their own civic identity (Pilecka, 2005). This identity had a Hanseatic character, as in the case of the ceramic assemblage recovered from the cloth hall cellars in Elbląg already cited above (Nawrońska, 1999, p. 375). In the fifteenth century, town councils took control over these buildings which were no longer retained as guild houses. This final phase can be linked to the promotion of courtly traditions linked to civic loyalty to the Polish Crown emerging after the fall of the Order and the emergence of Royal Prussia. At this point, such spaces clearly reflected the aristocratic ambitions of the municipal elite, a phenomenon visible around Europe.

Before the development of political tensions which resulted in uprisings of the Prussian Union, the wealthy town populations supported the crusading endeavours of the Order. Although on the one hand a certain distance is visible between the towns and the Order's castles, documentary sources indicate that town populations not only participated in crusading endeavours against Prussians in the thirteenth century and against Lithuanians in the fourteenth century through the provision of military service, but also supported the Order financially. The discovery of 17 medieval spurs in various parts of the Old Town of Elbląg (both prick spurs and rowel spurs, dating from the latter half of the thirteenth century through to the 1390s) confirms the sort of participation of townspeople within the Teutonic Order's *Reisen* as documented in the *Elbinger Kriegsbuch* for the years 1321, 1360 and 1377; towns within the Order's state supplied cavalry, infantry and wagons for transporting food and equipment. Patricians and wealthier merchants would certainly have been able to afford spurs typically associated with the knightly class. Towns such as Elbing suffered significant losses at the battle of Tannenberg in 1410 and the Polish army seized the commandery and town's banners. The loss of the town's military elite may reflect the absence of fifteenth-century spurs in archaeological contexts within the Old Town (Marcinkowski, 2003a, p. 186). Spurs have been found on a range of sites typically assigned a 'military status', such as

castles and strongholds, however their presence in urban and rural settlement contexts (e.g. Biała Góra where three rowel spurs had been found dating to the second half of the thirteenth century) reinforces the diversity of military resources within the Order's state. The support provided to the Order by townspeople – both military and financial – suggests that levels of allegiance were more complicated. The losses suffered by the urban military elite in 1410, nominal supporters of the Order, represented an important point in the formation of the Prussian League.

The secular civic elite invested heavily in parish churches and monastic houses which, in turn, represented powerful centres within the medieval Prussian towns, sometimes in conflict with the interests of the Order (see also chapter 6). In most cases the sponsors of church decorations remain obscure. The mid-fourteenth-century wall paintings from the parish church in the New Town of Thorn and in Neumark (Nowe Miasto Lubawskie) may have been sponsored by a range of groups: burghers, clerics as well as the local convents of the Teutonic Order (Domasłowski, 2010, pp. 125–126). Hospital foundations also had a range of investors. Elbing contained three hospitals, the first set up by the Teutonic Order in 1277 at the church of the Holy Ghost. Later, it passed into the hands of the town council and also functioned as a refuge for lepers (Nawrońska, 2004, p. 313). In Thorn, the Order also sponsored the construction of the hospital next to the church of the Holy Ghost (Czacharowski, 1983, p. 100). Whilst the elite are erratically represented in their sponsorship of religious art, the largest percentage of the urban population – artisans – is widely attested by excavations of individual properties, which provide detailed evidence on the character of trade and production in medieval Prussian towns. For example, the decoration of the church of St John in Thorn (1310–1320), attributable to the town's school of wall painters, is indicative of the developing role of the major Prussian towns as centres of artistic production, predominantly manufacturing religious art. This should not be seen as a purely civic phenomenon, for the most important patron of skilled artisans in medieval Prussia was arguably the Teutonic Order.

The Teutonic Order, the Hanse and the character of international trade

Trade within the Order's state was controlled by the administrative hierarchy and was quickly developed during the crusading period; thirteenth-century papal bulls had permitted the Order to engage in trade if it helped to advance the war against the pagans (Samsonowicz, 1994, p. 138). In the fourteenth century, the relationship with the Order's pagan enemies was complicated, as incessant warfare paralleled and was perhaps even funded by trade between both sides. Within the broader context of medieval European frontier societies this apparent conflict of interests was not unusual, and military policies were pursued separately from mercantile ventures. In this instance, there is extensive documentary

evidence for the Order's direct participation in – and justification of – trade with Lithuanians and their Rus' subjects until the intensification of the *Reisen* in the 1360s (Mažeika, 1994), after which commercial ties were revived with the official conversion of the Grand Duchy to Christianity, and particularly during the reign of Witold (or Vytautas; 1392–1430) (Kiaupa, 1990).

The organisation of this trade is well known (Maschke, 1970; Sattler, 1881) – every convent had a *Schäffer* who was responsible for buying and selling provisions and maintaining contacts with towns. International trade was organised by the Quartermaster or *Grossschäffer*, who was located in Marienburg and Königsberg from the second half of the fourteenth century. The quartermasters presided over a series of trading agents and their retinues who conducted business on behalf of the Order (Gancewski, 2001, p. 86). The Order's agents acted as middle men in many cases, buying and selling commodities such as fur from Rus' lands and Masovia, iron from Sweden and copper from Hungary (Samsonowicz, 1994, p. 141). Through these agents, the Order's state developed extensive connections with the rest of Europe; especially Flanders, England, Scandinavia, Italy, France, Iberia, Russia, Poland, Bohemia and Hungary. The Order had its own officials based in Bruges and London; merchants in the former, in particular, were major purchasers of Baltic furs from the Order's depot. And it was through here that the Order also sold grain, meat, wax, honey, amber and timber. In turn, the agents of the Order bought pearls, jewellery, wine, arms, salt, and – most important of all – Flemish cloth from Poperinge and Ypres. At the beginning of the fifteenth century, these represented 70 per cent of all textile imports into Prussia and a significant percentage of the Order's international transactions, with 60 varieties documented in the markets of the south-eastern Baltic. The Baltic crusader states became major suppliers of grain to the west as regional economies diversified, re-focused on pastoral farming or suffered from famines. In the fourteenth-century, Flemish towns – and in the fifteenth-century Dutch towns – were the main consumers of Prussian and Polish grain, representing more than 50 per cent of all the products exported by the Order. After Bruges, the primary market for export was England; during the Great Famine under the reign of Henry VI, the Order provided large quantities of grain; conversely in c.1389 grain was shipped from British ports to Danzig (ibid., p. 142). The mining and export of amber under the direction of the Teutonic Order started from the mid-thirteenth century and very little is known about the logistics of this industry which would have been focused predominantly on Sambia. Exported amber reached Rome, where it became incorporated into devotional artefacts (ibid., p. 140), and to known European centres of amber working such as Lübeck, where popular artefacts, particularly rosaries, were produced (Paner, 1999, p. 391).

There has been much discussion concerning the relationship between the Teutonic Order and the Hanse. The Hanse was a confederation of German towns which originated in Lübeck and came to dominate trade in northern

Europe. Its development, in many respects, shadowed the emergence of the crusader states in the eastern Baltic. In the same way that language presented a barrier to the effective Christianisation of the indigenous Prussians, the common *lingua* – German – facilitated and stimulated trade across the eastern Baltic. German merchants set up trading posts in the Teutonic Order's towns during the crusading era, sponsored and supplied its military campaigns and bridged the ideological gulf between Catholics, pagans and Eastern Orthodox Christians, perceived by the Order as schismatics. There were even plans to establish a Lubeckian colony in Sambia, before the opportunity arose to establish a base at Königsberg (Czaja, 2009, p. 183). Given the later tensions between urban communities and the Order, the towns that gained Hanseatic status in the Prussian *Ordensstaat* (Thorn, Kulm, Elbing, Danzig, Königsberg, Marienburg and Memel) present an interesting case where a distinct, international urban culture developed within the Order's state. The notion of a shared material culture defining the trading network of the Hanse has been particularly promoted and explored by David Gaimster (2002, 2007, 2011).

Most tableware and kitchenware found in Prussian towns was manufactured locally – represented by the thousands of fragmented greyware vessels recovered during urban excavations – but, in the fourteenth century, these were complemented by imports facilitated by the Hanseatic network. Technological developments in firing technology in the Rhineland produced a fully fused stoneware body with a very low porosity value, revolutionising domestic activities. With the proliferation of tableware forms reflecting the aspirations of the middle-class urban market to emulate aristocratic drinking and dining practices, German stoneware vessels, alongside the widespread adoption of smokeless ceramic tile-stoves, has been seen as representing a 'Hanseatic urban culture', linking middling consumers across northern Europe. Whilst the durable stoneware was ideal for long-distance export, stove tiles were more fragile and had to be manufactured locally, although German moulds were imported or emulated (Gaimster, 2002, pp. 111–112). In Prussian towns, imported ceramics are found in larger quantities in mercantile sites – such as the Artus court and town hall complexes, as well as the tenements of wealthier burghers. However, there is a gradient in international trade from the major Hanseatic ports, particularly Elbląg where excavated imports appear in abundant and diverse numbers, through to ones located some distance inland, but still connected with the network, such as Thorn, through to some of the less well-connected castles of the Order, such as Brodnica (Strasburg) where imported wares are found only very sporadically (Grażawski, 2009). Excavations in Elbląg have revealed how Danish and Dutch decorated brown glazed wares appear in the earliest phases of the town. From the mid-thirteenth century, there is also evidence for olive, proto-stoneware produced in the Rhineland and Lower Saxony, along with occasional, more elaborately decorated jugs from Saintonge on the French Atlantic coast (Nawrońska, 1999, p. 375). In the fourteenth century, the import of ceramics intensifies and the presence of beige- and cream-coloured stoneware is typical

of the Hanseatic network (*ibid.*, p. 375). The number of stoneware vessels also dramatically increases, imported from the Rhineland and Lower Saxony and, from the mid-fourteenth century, predominantly from Siegburg (North Rhine-Westphalia). Tiled stoves also become popular in towns in the fourteenth century, and in Memel only from the fifteenth century (Žulkus, 2001).

Standardised ceramics may have promoted a sense of unified Hanseatic culture or at least represented a closely connected market, whilst the diverse range of imports recovered from medieval Prussian towns underlines the wealth, connections and international aspirations of the civic elite. In Elbląg, over a thousand fragments of fourteenth-, and in greater proportion fifteenth-century glassware have been found, imported from various regions of Europe including Bohemia and southern Germany (Nawrońska, 1999, p. 378; 2008, p. 514; Gołębiewski, 1997). A small bowl, two plates and parts of an albarello – a majolica earthenware jar – were imported into the town from Andalusia and Valencia (Figure 5.12). Ceramics from southern Spain are rarely encountered in north-east Europe and almost certainly represent personal purchases, perhaps even gifts (Nawrońska, 2002). Around 50 per cent of clothing was imported into Elbing; clothes from Flemish and Italian silk houses represented 10 per cent of all recovered textiles (*ibid.*, p. 515); over 200 fragments of textiles, dating from the thirteenth century to post-medieval period, are known (Maik, 1997). In Gdańsk, luxury glassware appears in the fourteenth and fifteenth centuries, mostly from Bohemia and Germany. This was used for the consumption of wine imported from France, Spain, Italy and the Rhineland, and beer from Hamburg and Wismar were brought into Elbing, along with cod from Bergen (Nawrońska, 1999, p. 379). In Gdańsk, excavated barrel staves from southern Germany were dated by dendrochronology to 1358, with evidence of another German barrel dating to c.1585 found near the Artus Court (Paner, 1999, p. 389). Commodities exported in the fourteenth century from Gdańsk included pitch and birch tar, the latter being the most sought after variety of pitch, used for the conservation and water-proofing of ships, and for maintenance of their sails and tackle (*ibid.*, p. 389). Excavations in Elbląg, by Rzeźnicka Street 15 (Butchers' Street) recovered a knife with a worn ivory handle carved into the shape of a crowned male figure feeding a falcon, dating to the first half of the thirteenth century with much of the blade attached. This type of decorative handle was popular across Europe in the thirteenth and fourteenth centuries and this particular example has been interpreted as an import from Paris (Marcinkowski, 2010), whilst a locally produced variant has been found in Toruń (see below). Kitchen utensils were also imported; occasional examples of grey globular pots originated in North Germany and western Pomerania. In the fourteenth century, redware tripod cooking pots, dishes and dripping pans from the Netherlands appear, as well as mortars of stone from Caen and southern England, used for preparation of food, as well as schist bars from Eidsborg used in whetstone manufacture. Other imports included glazed ceramic toys from Denmark and Lower Saxony (Nawrońska, 1999, pp. 378–379).

But if imports are predominantly confined to the larger towns, the definition of a Hanseatic identity amongst specific groups appears to be more blurred in Prussia. During the crusading period, it is possible to speak of the involvement of individual or groups of German merchants in the eastern Baltic, whilst from the second half of the fourteenth century, there is more evidence for an organised, collective identity – of Hanseatic towns (Dollinger, 1964). In Prussia, this transition may be traced with the development of trading outposts, *Artus* courts and town halls within the major towns. However, the notion of a shared architectural culture – of step-gabled buildings and the use of brick – was not peculiar to Hanseatic towns, but unified the design of vernacular and sacred buildings in towns of all sizes, rural settlements and convents across the Order's state (see also chapters 4 and 6). Gotlandic stone was widely imported and used in the most exclusive structures within Prussia, not only in major civic buildings but also in conventual and religious spaces (e.g. the town hall of Elbing; the Grand Master's palace in Marienburg). The level of imported ceramics in some of the Order's castles is comparatively limited compared to urban assemblages, although data is lacking from the convents of the major Hanseatic centres – specifically Elbing, Königsberg and Thorn. However, even if a distinction is evident between the material culture of the Teutonic Order and the Prussian civic elite, the relationship between the Order and the Hanse was largely positive throughout the thirteenth and fourteenth centuries. Where tensions flared up they concerned individual towns and specific groups of merchants during particular episodes, which in the case of Prussia resulted in the selective imposition of trading restrictions at various points in the fourteenth century (Paner, 1999, p. 401). Political dissent is most clearly evident in the first half of the fifteenth century with the Kulmerland-based Lizard Union and the more successful Prussian Union. But disputes largely revolved around the freedom to trade, which was inextricably tied to the notion of civic self-government. This, in turn, could be significantly compromised by the rule of the Order. For example, in the first decade of the fifteenth century the council of Danzig attacked the Order's tight control over its trading activities. On the other hand, this did not happen in Königsberg, a member of the Hanse from 1340, and the Order's destruction of the Vitalian Brotherhood's base on Gotland in 1398 benefitted the Hanseatic network. At one point, the Grand Master was even a member of the Hanse, in contrast to the normal practice where only towns were granted this status. Thus, when it came to the merchants of its own towns, the relationship with the Teutonic Order differed from one family to the next, as well as over time. Much may have depended on the personalities involved – patricians, knights, established merchants, aspiring majors, commanders, voigts and procurators. Merchants from Thorn travelled down the Vistula to Elbing, Danzig and beyond to Flanders, Holland, England and the Scandinavian countries, whilst land routes connected Thorn with centres in Poland, Hungary and Rus' lands. The towns facilitated the movement of produce around the Order's state, with merchants

from Thorn buying significant amount of grain and cattle from Kuyavia. As the primary gateway between Poland and Prussia, this town appears to have played the most important role of all the Prussian centres and the Old Town hall contained the Hanseatic archive of Prussia (Czacharowski, 1983, pp. 50–51, 61). In the context of business, the Order benefited from a long-standing alliance with major *Kontore*, particularly with English merchants: 15 per cent of English Hanseatic transactions were carried out with the agents of the Grand Master, although some of the most important disputes also concerned this group (Jenks, 1992). Merchants represented a politically active group within medieval Prussian towns, whilst the largest proportion of the urban population inextricably linked to the rhythms of regional and international commerce, consisted of artisans.

The character and organisation of urban production

International trade was closely connected with local production, which also met very specific demands from the towns, convents and hinterlands of the Order's state. One particularly intensive market developed at Königsberg, which to date is largely known from written sources referring to the extensive requirements for provisioning, entertaining and arming the incoming participants of the fourteenth century *Reisen* (see also chapter 4). Towns became the most important centres of production in the Order's state and extensive excavations in Elbląg, Toruń and Gdańsk have demonstrated this very clearly, as indicated throughout this chapter. The Order laid the foundations for many of these industries, which developed to support (or take advantage of opportunities offered by) the associated convents. The requirements of constructing castles, monasteries, walls, towers and other high-status buildings resulted in the establishment of architectural workshops, with notable centres being Elbing, Marienburg, Thorn and Danzig; it has even been suggested that from the mid-fourteenth century, castle architecture was in the hands of urban master masons (Prycz, 1978, p. 48). The workshop of Master Bernhuser at Elbing, also active in Königsberg and Marienburg, is particularly well known and produced the most elaborate surviving example of a late medieval bronze font in the Order's state. This piece, in fact, exemplifies the different groups involved in the sponsorship, design and production of ecclesiastical furniture. Bernhuser's workshop was noted for its casting, but the decorations of its models were carried out by local artisans. The workshop even had international connections; Bernhuser was responsible for casting door knockers for churches in Adel, Norwich and York. This may explain why the bronze font cast for the church of St Nicholas in Elbing in 1387 is reminiscent of the architecture of contemporary English stone fonts. Furthermore, the decoration of the font includes some complex theological metaphors which must have been designed or suggested by an intellectual, most likely the parish priest who is mentioned on an inscription, along with the mayor and two local patricians. The sponsorship of the font is almost certainly related to

this elite circle. The decorations include familiar motifs from the convents of the Teutonic Order such as the coronation of the Virgin as *Maria Ecclesia*, identifying Mary with the triumphant church (Jakubek-Raczkowska, 2010b). Amongst the specialist metal workers found in medieval Prussia, goldsmiths were producing work from the mid-fourteenth century provisioning conventual and urban markets, but very few of these artefacts have survived or been recovered from archaeological contexts (Woźniak, 2010). From Danzig, an exceptional artefact consists of a bison horn with gold fittings shaped in the manner of a predatory bird and made in the mid-fifteenth century with the German inscription 'drink the contents to the bottom'; other examples include a chalice for wine from Thorn and a ceremonial key belonging to the Brotherhood of St George from Elbing (Baranowska-Fietkiewicz, 2010). More common are traces of industries mass producing cheap commodities for the local market. The role of deadstock in local manufacturing of bone, horn, leather and fur is evident from the significant faunal assemblages recovered from the historic centres of Toruń, Gdańsk and Elbląg, but no detailed socio-topographic studies of these industries have been carried out (Makowiecki, pers. comm.; see also chapter 7). The discovery of a carved bone knife handle within the precinct of the church of St Nicholas in Toruń led to suggestions of bone-working activities at the site in the thirteenth to fourteenth century (Połczyński, 1990, p. 104).

Production and trade were regulated by an organised bureaucracy producing regular records of transactions, elements of which have survived in the Order's and municipal archives. One of the most popular means of recording in medieval Prussian towns was on wax tablets, of which the largest assemblage has been recovered from excavations in Elbląg. These were first discovered in 1985, probably deriving from the school by St Nicholas' church, as well as by the town chancellor, and had been inscribed with wooden, metal or bone styluses. In 1994–1995, excavations uncovered 15 wax tablets and a leather pugilares (a decorated container for carrying the tablets of which three examples are known), from latrines in the backs of tenements (Nawrońska & Tandecki, 1997). Most wax tablets date to the first half of the fifteenth century and were used as notebooks for commerce. Earlier examples dating from the second half of the fourteenth century are known from private and some public collections in Chełmno, Gdańsk and Toruń; from the latter 128 tablets relating to the medieval civic bureaucracy have survived, with a date range from c.1350 to the mid-sixteenth century. Interestingly, there are evident differences in form between the more elaborately decorated covers deriving from the Old Town and the smaller, flimsier New Town tablets (Górski & Szczuczko, 1980, pp. x–xi). Urban literacy was also represented by libraries. Elbing boasted four: one was situated in the Order's castle, another in the Dominican monastery, a third in the parish church of St Nicholas from 1403 and the fourth belonged to the Bridgetine Convent (Nawrońska, 2004, p. 311).

Urban hinterlands

The process of urbanisation following established templates of settlement organisation under German town laws included at its heart the organisation and management of territories, with towns as central trading centres (Czaja, 2009, p. 177). However, the archaeology of medieval Prussian towns, with its foundations in urban rescue excavation, is typically detached from studies of urban hinterlands. The relationship between town and country is crucial to understanding the process of urbanisation, which required significant provisioning support from distant and near rural hinterlands. When towns were founded in Prussia, as elsewhere in central and eastern Europe, they were granted estates and access to a range of resources. The military orders had overseen the process of colonisation in the Holy Land and Iberia which included concerted efforts to integrate urban and rural settlements through a network of roads and fortifications. Most of our knowledge of Prussian urban hinterlands comes from written sources, which document the location and extent of property owned by burghers and how this changed from the fourteenth to sixteenth century. The *patrimonium* of a town referred to property owned by its inhabitants beyond the walls, usually rented out to peasants for meadow and pasture, charging for fishing rights and exploited for local natural resources such as timber. In other cases, land was assigned for common use by the town's inhabitants (*ibid.*, p. 195). Elbing's was the largest out of all the Prussian towns, covering an area of 200km² located predominantly west of the town across the Vistula Delta as far as Nowy Dwór (Nawrońska, 2008, p. 518, Figure 22). Environmental archaeology has contributed to tracing the development of the towns of Gdańsk and Elbląg, which had a striking impact on their surrounding environments (see also chapter 7). Supplying the local needs of a town was only one aspect of its territorial management. These hinterlands formed important components in the trading network extending across the eastern Baltic, where furs, timber and grain were sourced. This network, encompassing the entire hierarchy of settlements, was of course managed by the Order's commanders, procurators and voigts, but merchants also played a proactive role. A more distant hinterland, which is arguably better known, is the international market supplying the elite urbanites of medieval Prussia with luxury commodities. Archaeologists and historians have stressed the European context of these centres, and whilst this is of course an extremely important role of towns, especially with the context of the Hanse, future research could benefit from more detailed archaeological investigations of the organisation of town hinterlands, with the aim of understanding how these settlements developed (and in some cases redeveloped following destruction or relocation) so quickly and successfully.

Conclusion

Towns appear over the course of the thirteenth century in the wake of the Prussian Crusade, founded and developed by the initiatives of the Teutonic Order and its allies. They represent the most important expression of colonisation during – and following – the crusades against the Prussian tribes. As a result of the regional progress of the crusades and the development of the Order's state, towns became unevenly distributed; the highest density of settlement developed in the Kulmerland, lower Vistula and eastwards up to Masuria (Czaja, 2009, p. 193). Excavations have revealed how towns such as Elbling shifted from small nucleated trading centres largely constructed from timber, to more substantial brick-built conurbations with defined social stratigraphy and clusters of specialised industry. The material culture, including the types of buildings in these towns, can be linked to the presence of German colonists and merchants (Piekalski, 2004, p. 233). But it was only during the second phase of rebuilding that the regular 'chessboard' town plan was implemented, whilst both urban and suburban development continued throughout the fourteenth century (Fehring, 2004, p. 39). The success of the main urban centres was also reflected by the establishment of satellite 'new towns' within their vicinity, as at Thorn, Elbing, Braunsberg (Braniewo), Königsberg and Danzig (Czaja, 2009, p. 194). The Order's control was most visible in the presence of the castle: fully integrated within the urban defensive circuit of walls, towers and gates, whilst at the same time distinctly separated from the town by one or more baileys, as well as separate sets of walls, moats and sheets of water. A similar level of control can also be seen in the management of the town plan, implemented through the use of the Kulm Law. The most important towns attracted Hanseatic merchants and several flourished as a result of their pivotal role in Baltic trade. This shared mercantile culture was most pronounced in the largest urban centres, where imported German ceramics represent the presence of communities participating in a pan-Baltic commercial ideology. This was nested within a broader Prussian identity, created by the integration of castle, town and countryside within the context of colonisation, religion and general segregation from the indigenous population.

The archaeology of the towns of former Prussia has contributed significantly to understanding their layout, expansion, their role in local and international trade and the complexity of their communities. It has also contributed to an understanding of their distinctive elements, as well as those which were shared by urban communities in neighbouring regions such as the Kingdom of Poland or the Holy Roman Empire. Written sources emphasise that throughout the late-thirteenth and fourteenth centuries, town communities contributed to the Order's military enterprises, either through sponsorship or with the provision of military service. Merchants had benefitted from the international contacts of the Order's quartermasters and the economic protection afforded by special privileges. However, following the collapse of the crusading culture in

Prussia and the secular war with Poland-Lithuania, urban communities became increasingly detached from the Order. Internal political tensions flared up in the fifteenth century, when the formation of the Prussian League resulted in the destruction of the Order's castles in the old bastions of the first wave of colonisation – Thorn and Elbing. In turn, these towns would be affected by military incursions in later centuries, most devastatingly during the Second World War. Of all the medieval towns of former Prussia, only Toruń's historic centre has survived into the twenty-first century virtually intact, although much of its fabric dates from the sixteenth to nineteenth century and, in 1997, its singular state of preservation was officially recognised by UNESCO, along with the remains of the Order's castle. In many other towns, only fragments of wall have survived, or where the urban fabric has been redeveloped over many centuries it is often only the red brick gothic churches that have survived in one form or another. It is important to bear in mind that in most cases, only a small percentage of each medieval Prussian town has been excavated, and that future years will invariably yield significant quantities of new information on the nuances of medieval urban morphology. For example, whilst only 5 per cent of the Old Town of Elbląg was investigated from 1980–1995, this resulted in the recovery of several hundreds of thousands of finds (Nawrońska, 1997). Connections with hinterlands remain to be explored in far more detail. With increasing archaeological investigation associated with urban renewal, and more complex research questions being posed, it is clear the future of urban archaeology in north-east Poland and the Kaliningrad Oblast has the potential to be both informative and exciting.

6

CONVERTING PRUSSIA

The Christianisation of the Teutonic Order's state

In the year of our Lord 1283 and 53 years after the beginning of the brothers' wars against the Prussians, when there was not a single man to be found in all Prussia who was not a Christian or who was opposed to the faith, the brothers of the Teutonic House took up the call again and began to wage war on the Lithuanians.

(Nicolaus of Jeroschin, *The Chronicle of Prussia*, III: 221; Fischer, 2010, p. 208)

Crusading and conversion

The recurring association between crusading and Christianisation defines the narratives of the two main chroniclers of the Prussian Crusade: Peter of Dusburg and Nicolaus of Jeroschin. Peter, a priest of the Teutonic Order writing some decades after the establishment of the Teutonic Order's expanded state, recounts incidents of Christianisation during the course of the Crusade, but shows little interest in how religious conversion was sustained (Trupinda, 1999, p. 122). Nicolaus' narrative is even less concerned with the religious dimensions of the subsequent war against the 'mighty heathens' in Lithuania (see discussion in Fischer, 2010). Although the crusades were designed to check Prussian tribal aggression and protect Christians, religious conversion of subjugated individuals and communities was implicit from the very start. Members of the Order themselves were not qualified for missionary activity, including the chaplains who lacked the linguistic skills to communicate with Prussian converts (Ratajczak, 2004), and the process of evangelising was largely the responsibility of bishops, the mendicant orders and parish priests. However, a significant proportion of the Prussian ecclesiastical hierarchy, particularly in its formative years, was drawn from the ranks of the Order, and so the two groups – military order and religious – should not be understood as polarised. Moreover, the religious conversion of Prussia took place in three protracted phases. First, through direct missionary activity and episodes of forced baptism during the crusading era in the thirteenth century. Second, through the establishment of a parochial network from the mid-thirteenth century until the start of the sixteenth century, representing the period of Christian theocratic

rule. As a result of sustained colonisation, the Christian population of Prussia also significantly increased. Third, the time of the Reformation and Counter-Reformation introduced new pastoral schemes, models of church organisation and dogmatic teaching (Kosman, 1976, p. 6). This final phase is associated with the extinction of Prussian Baltic culture – language, identity and religion.

Whilst the infrastructure of the Church could be found in the lands bordering the west and south of Prussia, as well as the Eastern Orthodox Church significantly further east, pagan Prussians had encountered Christian ideas directly through missionaries, as well as a result of trade, raiding and political exchanges in much the same way as other groups in northern Europe had done in previous centuries.¹ There were even churches in the Slavic/Prussian borderlands before the crusading era, particularly associated with the expansion of the Polish state and Cistercian missionary activity (see also chapter 3). The Crusade would facilitate the gradual establishment of an ecclesiastical infrastructure throughout Prussia, which was nominally complete by the 1250s. In 1243, three Prussian dioceses had been created – Kulm, Ermland (later referred to as Warmia) and Pomesania. In 1252, a further diocese of Sambia (or Samland) was created following the initial military conquest of the region by the Order. The Teutonic Knights sought to impose a harmonious structure within their conquered territories and, by the end of the Crusade, three of the four dioceses had come under their control through the incorporation of the formerly independent cathedral chapters. Throughout the fourteenth century, political tensions between individual bishops and the Order were relatively minimal, and both groups united against the Polish-Lithuanian army in 1410. Of all the Prussian episcopal magnates, the bishops of Ermland were able to exercise the most independence; however, even this did not remotely approach the level of political authority enjoyed by the archbishops of Riga in neighbouring Livonia.

Archaeologists can contribute to our understanding of medieval Prussian religion in two major ways: first, by investigating the impact of the crusader state on pre-Christian cult and second, by assessing to what extent the establishment of churches, monasteries and pilgrimage was distinctive in the *Ordensstaat* when compared to other regions of medieval Europe. These two aspects are closely related, for the conversion period representing a complete shift from a pre-Christian to Christian society lasted at least three hundred years – longer than the Prussian crusader state which firstly shrank in the latter decades of the fifteenth century and then saw the widespread adoption of Lutheranism from 1525. In fact, there is a disparity between the archaeological and written sources for the persistence of pre-Christian cult practices. The reasons for this are circumstantial: continued pagan cult activity is documented in the countryside, particularly in Sambia, but the archaeology of Prussian rural society in the fourteenth and fifteenth centuries is to date very limited in the Kaliningrad Oblast and north-east Poland. However, there is a range of evidence to suggest the persistence of indigenous religious beliefs alongside the introduction

of a Christian society, perhaps even the presence of multiple, parallel religious cultures in some parts of eastern Prussia.

What about the character of medieval Prussian Christianity? Although the Teutonic Order's state, extending to Livonia after its union with the Sword Brothers in 1237, was unusual in medieval Christendom, the appointment of bishops, the building of cathedrals, parish churches and the influx of monastic communities introduced very familiar European Christian institutions. The Church in Prussia became the main source of intellectual culture, whilst the majority of public and private art produced in the region was, as elsewhere in Europe, religious in content. The archaeology of the medieval Prussian Church is also largely characterised by studies of standing buildings. Archaeologists have devoted considerable energy to recording the structures of churches and (largely destroyed) monasteries in Prussia; a number have been excavated providing key insights into their chronological development and function, as well as highlighting their particular regional characteristics. External influences and the input of the Teutonic Order on the design of religious buildings have been amongst the most important topics of research in this area (for a recent summary see Soćko, 2005, pp. 356–358). Ultimately, the archaeology of the medieval Church in Prussia is as much about the effectiveness of the Crusade and the Teutonic Order's state in converting the indigenous population, as it is about the flourishing of a European Christian society.

Imposing a parish system on Prussia

A significant amount has been written on the historical development of the Prussian Church, effectively forming a sub-discipline within the study of the *Ordensstaat* (for the latest summary and literature review see Radziwiński, 2008). This represents an important framework for understanding the material culture of religious change in Prussia, and only a short outline can be presented here. The development of the Christian hierarchy in early-thirteenth-century Prussia has strong political overtones and has often been characterised as a tug of war between the Cistercian Bishop Christian, who struggled to maintain control over the entire region, and the Teutonic Order responsible for organising the crusading campaigns. Christian had led missionary activity in the Prussian borderlands and was appointed bishop of the region at the end of 1215, consolidating Christian Slavic communities (and perhaps even Prussian converts) in key centres such as Zantir. In 1221, Pope Honorius III planned a missionary campaign aimed at converting non-Christians, sending letters to over forty provinces across Europe asking for peaceful conversion and the readiness for martyrdom (Fonnesberg-Schmidt, 2007, pp. 163–164). Missionary activity would be consolidated through the development of an ecclesiastical infrastructure, initially through the creation of dioceses. The pope's letter to participants in the crusades into Prussia in the early decades of the thirteenth century indicated that full control of the development of the Prussian Church

was in the hands of Bishop Christian. Missionary activity was still under threat in the early years of the Order's campaigns and, in 1231, the pope authorised the preaching of the crusades in aid of *Prussian converts*, by the Dominicans in Pomerania and on Gotland (ibid., p. 192). But matters changed as the Order became increasingly successful – and physically entrenched – in Prussia. The legate of Pope Innocent IV, Cardinal William, drew up a plan for reducing Christian's jurisdiction to a single diocese. Despite the bishop's continued protests, the pope remained firmly behind the sovereignty of the Teutonic Order in governing the conquered territories.

The four Prussian dioceses formed the backbone of the parochial system (Figure 6.1). Memel (Klaipėda) and the Curonian Spit were included within the Livonian diocese of Courland. Bishops were subsequently elected with Sambia being the last post to be filled in 1254, and episcopal authority would not be consolidated here for many decades due to the threat of Prussian and Lithuanian incursions, as well as quarrels with the Teutonic Order (Urban, 2000, p. 168). The priesthood could only really begin its evangelising of the surviving population in a relatively stable political climate, following the suppression of the Great Prussian Uprising. The bishops' territories, consisting of around one-third of land within each diocese, remained in flux for some decades and would be defined over the latter half of the thirteenth century



FIGURE 6.1 The dioceses of medieval Prussia (redrawn aft. Biskup *et al.*, 2009)

(Radzimiński, 2008, p. 146); the Bishop of Ermland was granted Galindian territory only in 1263, almost a decade after the region was occupied by the Order. This territory was taken back by the Knights in 1340, a situation ratified by the pope in 1375 (Białuński, 1999, p. 167). The office of archpresbyter (or archpriest), second only to the bishop, would also develop in the fourteenth century, although in Sambia this process may have continued into the first half of the fifteenth century. Each archpresbyter would be assigned a territory; the Pomesanian diocese, for example, contained 15 such districts (Radzimiński, 2008, p. 157).

Since bishops were dependent on vassals to run their dioceses, they brought more German settlers into their own territories, operating in much the same way as their counterparts in the Holy Roman Empire, as well as the Teutonic Order. Bishops were supported by cathedral chapters: colleges of canons responsible for electing bishops and helping with diocesan administration. The Order incorporated all but one Chapter into its convents, an action ratified by the papal legate; by the start of the fourteenth century, Ermland remained the only truly independent bishopric in the *Ordensstaat* (ibid., p. 147). This essentially gave the Order control over the appointment of bishops within its state. The Prussian Church was united with the Livonian Church through the office of archbishop, who had jurisdiction over both regions. The first to officially hold the post was Albert Suerbeer from 1246 but, from 1255, the archbishops resided in Riga and whilst they presented a formidable challenge to the dominion of the Livonian Order with the ownership of significantly more land within their dioceses, they exercised relatively limited influence in Prussia (Mroczko, 1974, p. 293).

The Order was largely responsible for the organisation of the parish system. The establishment of a parish nominally began with the construction of a central church (*Pfarre*) and the recruitment of a priest (Krantz-Domasłowska, 2010). This process began in the Order's urban colonies; the church of the Virgin Mary in annexed Danzig started to be built a year after the Order located the town in 1342; churches in Elbing (Elbląg) and Braunsberg (Braniewo) were also built shortly after their foundation (ibid., p. 48). The church was typically sited in a prominent location, centrally located on the main axis of the town plan (Figure 6.2). In Kulm (Chełmno), the medieval urban *locus sacrae* have survived to this day with the central church located close to the market and the monasteries on its periphery; in many other towns this is not so clear (ibid., p. 49). In eastern Prussia, the first stable parishes were established towards the end of the fourteenth century or even later (e.g. the church at Milken (Miłki) south of the procurator's castle at Lötzen (Giżycko) may not have been built until the start of the fifteenth century), and in Samogitia only from 1422. In Sambia, the parochial structure was closely linked to the *Kammerämter*, to the extent that the Order's lesser officials were given the responsibility of enforcing church attendance in the first half of the fifteenth century; even the more independent bishops or Ermland relied on the Order's officials to collect fines for



FIGURE 6.2 Town plan of Kulm (Chełmno) showing the location of religious buildings

failure to attend mass (Radzimiński, 2008, pp. 8, 24–25). The Prussian parish system survived until 1466, when it was reorganised with the loss of territory to the Polish Crown. In the fifteenth century, 722 parishes are documented in the Prussian dioceses, including 76 town parishes. When including neighbouring dioceses within the furthest extent of the Order's territories, there were 948 parishes, of which 97 were in towns.

The parish churches of Prussia were intended to serve the converted population and the colonists. From the very onset church construction was linked with the goals of the Prussian Crusade, as vividly expressed in the Treaty of Christburg. The early timber churches from the crusading era are, to date, virtually unknown archaeologically, whilst the building of urban and rural churches between the late-thirteenth and fifteenth centuries was closely associated with the process of colonisation. A major obstacle in spreading the message of Christianity to surviving Prussian communities was the language barrier between the incomers and the indigenous population. The Ermland bishops recognised the problem and sought to educate local peasants as priests, so that they could communicate with congregations in their native tongue. But this was still an issue in 1426, when Pope Martin V directed that in mixed parishes (i.e. with German/Slavic and indigenous Prussian communities) the priests should know both the Prussian and German languages (Kosman, 1976, p. 25). The conversion of Prussia was therefore an ongoing process throughout the duration of the Teutonic Order's state, and it was evidently incomplete after this became secularised in 1525. The combination of religious reforms and the gradual eradication of the indigenous Prussian language, customs and identity resulted in the complete disappearance of pre-Christian world-views by the seventeenth century. Memories were preserved in place names, abandoned cult sites and ever-changing folklore, collapsing the nuances of pre-Crusade Prussian culture into a normative and timeless 'pagan past'.

Building churches in a conquered land

The still-standing gothic churches of Prussia have attracted extensive scholarly attention, resulting in very detailed, comprehensive studies of their foundations, architecture and decoration, focusing on specific regions, particularly Ermland (Loyal, 1995), but also covering the whole of Prussia (most recently and comprehensively Herrmann, 2007). By the time of the Treaty of Christburg in 1249, 22 churches are listed as being built, most likely in administrative and estate centres, and in close proximity to the Order's fortifications. There is a widespread assumption that the majority of churches in thirteenth-century Prussia were constructed from timber and replaced with brick in the fourteenth century. Indeed, the countless wars of the thirteenth century would have disrupted the process of parish formation in the countryside, and the written sources imply that some churches were destroyed and rebuilt. The Treaty of Christburg called on the Prussians to rebuild the churches they had destroyed, but the relationship between church construction and the indigenous population has evaded archaeological scrutiny, insofar as none of these early timber churches have been the subject of detailed investigation. As a result, the relationship between the early churches and pre-Christian cult sites remains unclear (Kosman, 1976, p. 20). Archaeologically, Prussian medieval churches, especially in the countryside, remain largely unknown. Most architectural and archaeological investigations have focused on their chronological phasing (e.g. Chrisburg/Dzierzgoń; Korpysz, 2004) and their regional typology (Herrmann, 2007), whilst their location is more likely to be related to the layout of new settlements rather than the obliteration of pre-Christian cult sites, although there are exceptional cases of the latter (see below). The local population of converts was initially involved in their construction, but this became increasingly specialised. In monasteries and cathedral chapters, officials named *magister fabricae* would be responsible for co-ordinating building work (Arszyński, 2005, p. 125), whilst the large urban parish churches were constructed by highly skilled architects, masons and craftsmen working with brick.

Church form

There is a general diachronic trend of church construction from west to east, with the earliest churches constructed in the Kulmerland, Pomesania and along the Baltic coast into Sambia before 1300. Only after 1360 are the majority of churches built in Ermland and eastern Prussia, with several more constructed between 1410 and 1530. The form of churches represented the wealth, ambitions and preferences of sponsors alongside the imagination of architects, with a broad uniformity in church design. Four general forms have survived: simple rectangular buildings, a rectangular nave with a smaller, square chancel at the east end, a rectangular nave with a tower, representing almost 40 per cent of Prussian church forms, and churches consisting of a combination of towers,

naves and chancels, representing around 28 per cent of the total (Figure 6.3). Regional differences are also evident. In Sambia, for example, three-quarters of churches were provided with choirs, whereas in eastern Prussia the majority were simple structures lacking this extension (for a comprehensive survey see Hermann, 2007). In the Kulmerland, 24 churches constructed before the mid-fourteenth century were originally covered with barrel-vaulted roofs constructed from timber, which raised their interiors significantly and enabled slit windows to be added to the upper walls. They consisted of a single nave with rectangular and polygonal chancels (the so-called 'hall type') (Kozaczewska-Golasz, 1978). Differences between urban and rural areas attest to levels of relative wealth and investment; all church buildings less than 40m in length were found in the countryside whilst the majority of town churches were between 40m and 70m long, with only cathedrals exceeding these dimensions (Hermann, 2007, p. 54). External influences are evident in church architecture, as they are in the Order's convents (see also chapter 4). Prussian sacral architecture falls within the broader category of *Backsteingotik* or 'brick Gothic' which became popular across the southern and eastern Baltic region in the Late Medieval Period. Monastic communities and the movement of people from various regions of the Empire into the Order's state invariably facilitated the dissemination of this style, which became popular in sacral and vernacular buildings, as well as those sponsored by the Teutonic Order. However, the architectural form which characterised, in particular, hundreds of Prussian rural churches, can be seen as very much a local cultural expression and it is possible to speak of a general unity in design, of a 'Prussian sacral architecture'. This architecture flourished from the mid-fourteenth century, when intensive building works commenced in the territories of the bishops. The eastern ends

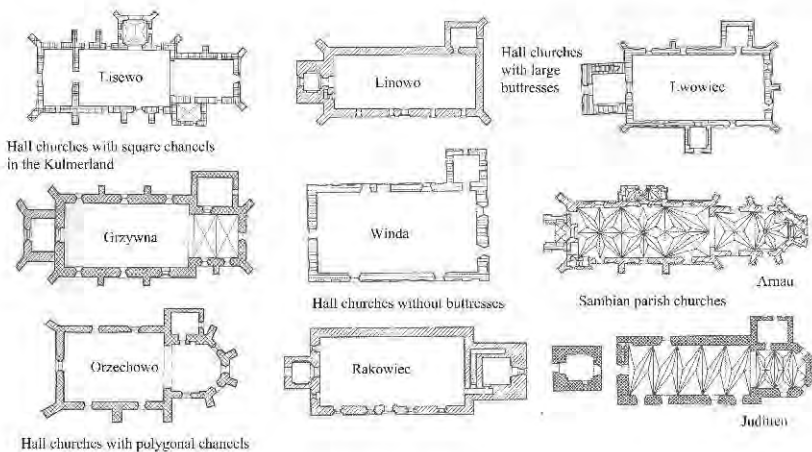


FIGURE 6.3 Medieval Prussian church forms (aft. Hermann, 2007, 2010)

of churches, adjoining towers and protruding sacristy buildings became decorated with characteristic stepped gables. Towers were constructed in a number of structures, but not always finished. These are known to have contained bells in some cases, although these rarely survive from the Late Medieval Period. The audible role of church bells – and liturgical music – in consolidating a Christian identity for the local community has been suggested for Livonia, and also applies to Prussia (Murray, 2009). Decorative architectural elements were introduced, such as painted and glazed moulded brick friezes. Church interiors were presumably elaborately painted, as suggested by what little original interior fabric has survived, with the northern and western walls usually devoid of windows (see below).

In some cases, Prussian churches appear to have been fortified. The phenomenon of fortified churches is found in specific regions of Europe, typically associated with politically unstable frontiers or, as in the case of Languedoc, conquered territories (Bonde, 1994; for a discussion of the term *Wehrhafte Kirchen* see Seib, 1999). In Prussia, the majority of churches did not function as refuges against attacks, and were not built with defence in mind. The castles of the Teutonic Order and bishops provided security, although exceptions are evident in parts of Prussia which remained vulnerable to Lithuanian incursions. In the town of Eylau (Iława), the church walls and its tower were incorporated into the southern-eastern side of the town walls, traces of which have survived within this structure. Here the procurator's residence was constructed to the north of the church in the 1320s. Entry from the residence to the church was most likely through a door in the northern wall situated on the first floor. Both castle and church were incorporated into a complex of buildings emphasising the link between the administrative/military and spiritual centres of the town (Soćko, 2005, p. 31). In Rastenburg (Kętrzyn), the fortified church of St George was constructed from around 1360, around a decade after the foundation of the town and forming the south-western corner of the urban defensive circuit. The present appearance of the church owes much to late-nineteenth-century restoration works, whilst the earliest surviving fabric is found in part of the southern wall and the western bay of the nave's southern tower (Figure 6.4). After its initial construction the structure was altered in five subsequent building phases (Haftka, 1999, p. 135). An elongated hall was built in the first decade and the walls were provided with defensive galleries. The building was enclosed by a wall on the southern and western side punctuated with concentric towers; on the inner side the church's precinct was only separated from the town by the wall of the attached cemetery. A large bell tower was added at the start of the fifteenth century and the church was significantly expanded into a three-nave structure in 1470. Three decades later, it was rebuilt following a fire at which point diamond vaulting was added to the interior. The gallery inside the church was most likely reserved for the officials of the Order and their guests, a clear visual expression of authority over the town (Soćko, 2005, pp. 114–115). The construction of church towers could represent civic aspirations and such



(a)



(b)



(c)

FIGURE 6.4 Views of the western side (a), diamond vaulting in the nave (b) and the southern side (c) of St George's church in Kętrzyn (Rastenburg)

initiatives were blocked by the Order in the largest Prussian towns until the political situation had changed in the fifteenth century, in contrast to the countryside and smaller towns (*ibid.*, p. 272). On the other hand, the militaristic architecture and layout of St George's is a clear reflection of the Order's authority, but also the role of the town as a secure point in the defence of the crusader state's eastern border (Haftka, 1999, p. 133).

Church decoration

Very little interior decoration has been preserved in the Prussian churches from the fourteenth and fifteenth centuries. It is evident that church interiors would have been elaborately painted, and some wall paintings have survived (Domasłowski, 1978). Examples of what may have been relatively common include a mid-fourteenth-century fresco of the Passion of Christ and the Song of Songs from the Cistercian convent church in Kulm, a wall painting from the end of the fourteenth century showing the coronation of Mary in the church of the Virgin in Thorn (Toruń), and paintings in the cathedral in Marienwerder (Kwidzyn) dating to the last quarter of the fourteenth century showing unclear representations of Christ as an infant and possibly the symbolic *hortus conclusus* (the enclosed garden) (Raczkowski, 2010). Early altar paintings before the introduction of the late gothic retables (framed altarpieces) have survived in Thorn, such as the altar of St Cross in the church of SS Johns from c.1360 and in the church of St James associated with the altar of St Mary Magdalene. Stained glass survives from the fourteenth century today in churches in Toruń and Chełmno. The earliest information about the Thorn school of stained glass production dates from the fourteenth century, although the names of masters are only known from the 1380s. Stained glass from Kulm had much in common with Czech art and the artistic circle of Charles IV in Prague, especially Master Theoderic. There is also evidence of Venetian influences from Trecenta, comparable to Giotto di Bondone's work in Padua (Kluczajd, 2010a, p. 228).

These survivals indicate the existence of specialised workshops focused on major Prussian towns, the level of investment by wealthy sponsors and the popularity of particular saints – particularly the Virgin. Much of the portable sculpture in wood, stone and false stone that has survived is Marian in character. The 'Madonna on the lion' carved from lime and painted in polychrome, from the church in Güntershausen (Lubieszewo) dated c.1370–1375 is a typical example of *Maria Victrix* – the triumphant Mary. Whilst oak was preferred for larger panel paintings and altar pieces, lime was more often used in sculptures. One of the best preserved examples is a 2.5m-tall crucified Christ carved from lime, painted in gold and silver, and originally situated in the Dominican church of St Nicholas in Thorn from the last quarter of the fourteenth century. This is interesting given the pre-Christian significance of lime in eastern Prussia and the rebranding of the lime goddess' sites as belonging to the Virgin (see also

chapter 2), but there is no clear evidence this wood was chosen deliberately for its symbolic connotations. One of the most popular forms of Marian art was the ‘cupboard Madonna’ or *Schreinmadonna*; a form of portable altar encased within a figure of the Virgin with an elaborately decorated interior that may have been used to house and reveal the Eucharist (Nowiński, 2000, p. 128). These devotional foci were also politically charged. Where they were commissioned by the Order they included representations of Teutonic Knights under the protective robes of the Virgin, but when produced under secular patronage or in similar Marian representations in parish churches, members of the Order were not included. The church at Juditten is often cited as an exceptional case of a parish church where the Order’s ideology was clearly expressed within the iconographic programme, but since the majority of Prussian church decoration has not survived, it is difficult to estimate the dissemination of such expressions throughout the parishes of the *Ordensstaat* (Dygo, 1989, pp. 72–73).

The use of decorated funerary monuments was widespread, representing a typical use of the church building as the foci for commemorating the dead and emphasising the local social hierarchy. An interesting exception could be found in the cathedral in Königsberg (Kaliningrad), which included the burials and commemorative markers of knights who had fallen during the *Reisen* (see also chapter 4). However, the majority of grave slabs that survive are from the fifteenth century, and are rarely found *in situ*. The black marble tomb stone of Arnold Lischoren (along with two individuals named on the inscription as Wernico and Konrad) from the Cistercian nuns’ church of Saints John the Baptist and John the Evangelist, was funded by Gotfryd Lischoren, a Silesian living in Kulm and later a member of the town council of Thorn. This is the earliest surviving gothic tombstone from Prussia, dating to after 1275, and is almost certainly an import. Some of the better-preserved later examples include those of Bishop Kaspar Linke of Christburg (d. 1463) representing him in full episcopal costume with a mitre and crosier, whilst a more elaborate – and extremely rare – example is the decorated bronze fittings that have survived from the grave slab of Bishop Paul Legendorf (d. 1494). At the base of the bishop’s feet and in the corners are heraldic shields, the primary shield representing his family – the Stanges (Jarzewicz, 1998, pp. 91–93). The first of these slabs was removed from its original place and installed on the walls of Marienwerder cathedral in the late-nineteenth century, whilst the second was transported from the church of St Catherine in Braunsberg to the Museum of Ermland in Heilsberg (Lidzbark Warmiński).

Marienwerder cathedral has also been the focus of excavations from 2006–2008, which shed unique light on the mortuary rites associated with the burials of the Grand Masters of the Teutonic Order. Explorations of the presbytery and nave uncovered crypts and a number of burials. In one crypt, three burials contained mature individuals whose bodies did not exhibit signs of violence or chronic disease. They have been tentatively identified as those of Grand Masters Werner of Orseln, Ludolf König and Henirich of Plauen; two of the

coffins were dated by dendrochronology to after 1325 and 1389 (Kozłowski & Drozd, 2009; Ważny, 2009). The bodies were accompanied by fragments of thirty varieties of coloured silk of Italian manufacture including traces of red, orange and violet dyes, indigo, as well as evidence of painted gold decoration, suggesting they had been clad in brightly coloured tunics and cloaks for burial. Bright red felted wool cloth was also present, most likely a German or Flemish import. This contrasts with the austere image of the Teutonic Order's membership which traditionally favoured monochrome clothing. In fact, this did not apply to the highest offices of the Order and silk was regularly purchased for the Grand Master's garments and for his chapel (Grupa, 2009). The close connection between the Order and Marienwerder cathedral is underlined by the wall paintings of three Grand Masters situated next to the Virgin Mary and Child, most likely dating to the early-sixteenth century and commissioned by Bishop Hiob of Dobeneck, himself a member of the Order (Wiśniewski, 2009, p. 12).

In terms of liturgical equipment required by parochial churches some examples have survived in private collections or in the treasuries of the larger churches. The most spectacular examples represent high levels of investment from wealthy benefactors. The Order also furnished its chapels with liturgical equipment. Very little has survived as most of these structures were reduced to ruin or re-used (see also chapter 4), although such artefacts are occasionally recovered through excavation. For example, a crushed copper thurible (censer) was found in the moat of the Order's castle at Sątoczno (Leunenburg), tentatively linked with the castle's destruction by a Lithuanian army in 1347 (Andrzejewski & Kajzer, 2006). In general, the churches in medieval Prussia were decorated and functioned in much the same way as elsewhere in contemporary Europe. They differed where the evident sponsorship of the Order promoted iconographic programmes reflecting its ideology of holy war and Marian devotion. This has already been discussed in some detail in chapter 4, whilst the most ambitious Prussian bishops promoted their own ideologies reflecting aspirations of political independence within the *Ordensstaat*.

Episcopal dominion

Bishops played a fundamental role in driving the process of colonisation and political expansion in Prussia with the establishment of towns, castles and the encouragement of colonists. They were effectively in complete control of their Prussian bishoprics established by papal decree, maintaining a stable if sometimes uneasy relationship with the Teutonic Order, although nothing compared to the hostility between the archbishops of Riga and the Livonian branch of the Order. Whilst the incorporation of the diocesan chapters into the Teutonic Order may have reduced episcopal autonomy in much of the *Ordensstaat*, bishops continued to exercise their distinct authority. Their emblems differed from those of the Order with symbols of their episcopal

office such as the mitre and crosier alongside diocesan patron saints, such as John the Baptist represented by the *Agnus Dei* (Paszkievicz, 2009, pp. 98–99). However, the most explicit symbols of authority were represented by their residences which also functioned as the administrative centres of the Prussian dioceses. Bishops' residences often took the form of castles, emulating the architectural styles of the Order's convents. These castles were relatively limited in number, reflecting the differences between commandery and diocesan administration. In the Kulmerland diocese there were only two large castles, at Löbau (Lubawa) and Briesen (Wąbrzeźno), in Pomesania at Marienwerder and Riesenburg (Prabuty), in Ermland at Braunsberg and Heilsberg and in Sambia in Fischhausen (Primorsk) and Georgenburg (Mayovka).

These large castles were comparable to those built by the Order in their size and function. Marienwerder was unusual in that it was the site of a bishops' residence, located on one side of the town and the Chapter's castle with a distinct conventual layout. The design of these structures varied with no clear template; seven episcopal castles had three or four wings, whilst nine, including the smaller castles, only had one or two, reflecting the wealth and household needs of the individual bishops sponsoring their construction and subsequent expansion (Herrmann, 2007, p. 81). The bishops of Ermland, the most powerful and wealthy in Prussia, also possessed a series of smaller castles at Wormditt (Orneta), Röbel (Reszel), Seeburg (Jeziorany) and Wartenburg (Barczewo). There were also castles constructed for the diocese chapter as well as the residing bishops. These were at Kauernik (Kurzętnik) in the Kulmerland, Schönberg (Szymbork) in Pomesania, and Allenstein (Olsztyn) and Mehlsack (Pieniezno) in Ermland. These smaller castles were comparable to the Order's residences for voigts and procurators (Frycz, 1978, p. 27). Most of these structures have not survived – the castles at Lidzbark Warmiński, Reszel and Kwidzyn are exceptionally well preserved, albeit restored. A brief overview of each of the Prussian episcopal territories will demonstrate how the bishops represented a dynamic counterpart to the Teutonic Order.

Kulm

The parish system in the Kulmerland had already been organised under Masovian rule by the start of the thirteenth century (Radziński, 2008, p. 143). The Dominican Bishop Heidenryk founded the Kulm Chapter aimed at creating a strong base for the Church in this key province, although this was quickly incorporated into the Teutonic Order. By the start of the fifteenth century, there were 117 parish churches in the diocese, including 15 located in towns (*ibid.*, p. 159). The Kulmerland was one of the heartlands of the Order's state and included a high density of commandery castles and residences of lesser officials. These significantly outnumbered the three diocesan castles situated at Löbau, Briesen and Kauernik (Kurzętnik). The latter became the property of the Kulm Chapter from 1291 and became the residence of

the Chapter's castellan and a canon serving the local parish (of the church of St Mary Magdalene) into the mid-fifteenth century. The elongated shape of the castle, constructed in the early decades of the fourteenth century, can be related to its topographic setting. It was built on a narrow, steep-sided outcrop, securely defensible from all sides with its entrance and main residential complex situated on the more accessible southern slope. The earliest residence consisted of a heavily fortified tower built from field stones and linked to a walled outer bailey; at the northern end a multi-storey tower supported by massive buttresses on three sides was constructed and included a chapel dedicated to the Holy Cross. Bricks were incorporated into the upper parts of the walls and framing some of the windows. The castle was also known to contain an armoury – archaeological investigations in the early-twentieth century uncovered a bombard decorated with the image of the Virgin and Child. Despite its location, the structure was associated with local security and administration rather than serving a regional strategic role (Haftka, 1999, pp. 140–141). The castle was situated next to the planned town of which little survives other than the fourteenth-century parish church. It was supported by a couple of *Vorwerks* and sixteen settlements.

The castles at Lubawa and Wąbrzeźno have been the focus of excavations, which are still ongoing at the latter. The castle at Wąbrzeźno was situated between two lakes on the road linking Kulm with Strasburg (Brodnica) and Gollub (Golub). Recent excavations led by Marcin Wiewióra represent the first detailed archaeological studies at the site, and have sought to clarify the architectural chronology of the structure. A *castrum* is documented here from the mid-thirteenth century, but the nearby mound traditionally thought to have been an early-medieval stronghold was, in fact, a spoil heap most likely related to German excavations in the 1940s (Wiewióra, pers. comm.). The early settlement and fortification constructed by the bishop in 1246 was destroyed during the last Prussian insurrection and a new episcopal residence was constructed from the start of the fourteenth century; the western side of the peninsula was raised and levelled where a stone and brick quadrangular residential complex was built. Two- and three-storey buildings lined the complex on three sides, whilst the entrance leading to the outer bailey was guarded by an octagonal tower. Only the southern wing contained cellars and was open to the inner courtyard with a cloistered arcade. It included a refectory and a chapel dedicated to St Mark. The other spaces served administrative and storage functions. The eastern side of the castle was separated from the outer bailey by a moat. The castle remained in episcopal hands into the seventeenth century, but was slowly dismantled from the end of the eighteenth until the late-nineteenth century (Haftka, 1999, pp. 338–340). Löbau, the site of early Cistercian missionary activity, came under the dominion of the Bishop of Kulm from 1243. The earlier timber stronghold, which Peter of Dusburg describes as being destroyed by the Natangians, was replaced by the brick structure situated on a raised outcrop and constructed in the early decades of the fourteenth

century, only to be destroyed during the war between the Teutonic Order and Poland between 1326 and 1332. The complex was rebuilt from the second half of the fourteenth century and was reminiscent of a quadrangular castle in the style of a conventual structure, with a large tower in the north-west corner guarding the entrance and smaller towers in the other corners. An outer bailey separated the castle from the town, which was organised around a central market square. Excavations were carried out at the site in 1998–2000 with the aim of clarifying the phases of construction (Andrzejewski & Kajzer, 2003). Although episcopal property, the castle was used by the Order as a strategic point in securing the border with Poland (Haftka, 1999, p. 164).

Pomesania

By the start of the fifteenth century, there were at least 267 parishes in Pomesania, including 21 situated in towns. These were governed by the bishop and Chapter, and the most important and best-preserved diocesan complex in Pomesania where both had their strongholds was at Marienwerder. During the crusading period, it was fortified by the Teutonic Order and then passed into the hands of Bishop Ernest, formerly a Dominican friar (see also chapter 3). From 1285, Marienwerder was the seat of the cathedral Chapter, and it is the Chapter's castle which has survived into the present day (Figure 6.5). The bishop's *castrum* situated on the other side of the town to the south of the cathedral was destroyed and dismantled in the sixteenth century. The irregular, five-sided plan of the town, which was only walled in the fourteenth century, was both constrained and defended by its topographic setting. Its less protected eastern side was secured by a large moat, fed from a nearby pond. The church, rebuilt as a cathedral, contained an expansive nave and a relatively small chancel. Its origins are obscure, but the projecting southern entrance contains a Romanesque facade which has been dated c.1300–1350; relatively late for this architectural style and constructed from Gotlandic limestone, potentially derived from the dismantled episcopal chapel (ibid., p. 143). Excavations in the presbytery revealed traces of the earliest brick phase of the church, dating to the mid-thirteenth century, as well as traces of iron slag associated with the construction of the later structure (Wiśniewski, 2009, p. 20). The rest was built in the late medieval gothic brick style. The lower part of the presbytery was constructed from 1322; seven years later Grand Master Werner of Orseln was buried there. The crypt itself was sunk into the ground, whilst the upper choir was situated above the level of the church. The cathedral is linked to the castle and part of the presbytery may have functioned as a type of castle chapel (Korpysz, 2004, p. 18). The crypt under the choir would have been the burial place of bishops, but uniquely contains the burial place of at least two, probably three, Grand Masters (see above). The cathedral would be fully integrated with the Chapter's castle by the fifteenth century. Construction on the latter began a century earlier, and took the form of a brick quadrangular conventual structure, lying on lower levels of stone.



(a)



(b)



(c)



(d)



(e)



(f)

FIGURE 6.5 Six views of the Chapter's castle and the attached cathedral at Kwidzyn (Marienwerder): the well tower (a), the north face (b), the south face of the cathedral with detached tower viewed from the Old Town (c), the chancel (d), the west-facing *Dansker* tower projecting out from the escarpment (e, f)

Its outer bailey was situated to the north and is represented as an enclosed precinct lined with buildings on three sides in Caspar Henneberger's sketch from 1595, where the Chapter's castle and cathedral dominate the associated town. The most distinctive feature of the castle were two projecting towers: a *Dansker* tower built 54m to the west in 1384 and linked to the main complex by a brick porch supported on arcades, and a well tower projecting 18m to the north. The castle was a substantial structure with wings consisting of five and six storeys, as well as vaulted cellars. It contained communal eating and sleeping spaces, and resembled in many respects the layout of the Order's typical conventual castle (Haftka, 1999, pp. 144–147). The castle briefly passed into the hands of the (Protestant) Pomesanian bishop in the early decades of the sixteenth century and subsequently became used for secular administrative functions. As with many fortified structures in Prussia, the form of the castle was significantly modified in the late-nineteenth and mid-twentieth century during restoration works, although much of the material recovered during this process – and excavations in the Old Town – awaits publication.

At Schönberg (Szymbark), the castle of the Pomesanian Chapter was constructed relatively late, from 1381–1386, and remained in their possession until 1527. It was situated on a typically defensible area of high ground amidst marshy terrain: a sandy outcrop overlooking a lake. The first phase of the castle was built as a rectangular structure measuring 75 × 92m with four corner towers. Unlike the Chapter's conventual residence in Marienwerder, the castle at Schönberg was the seat of a diocesan administrator and its design reflected a comparatively smaller household. A large tower guarded the entrance to the bridge that led into the castle. The walls were subsequently heightened as multi-storey buildings within the castle were constructed, reflecting the growth of the household. These were completed in the early-fifteenth century. The structure would continue to be used after being damaged during the Thirteen Years War. After the secularisation of Prussia, the castle briefly passed into the hands of the Grand Master and was then presented to the first Lutheran Bishop Georg of Polenz, which prompted a further phase of rebuilding; its fabric was subsequently altered by various owners and then the structure was reduced to a ruin during the Second World War (*ibid.*, pp. 310–311).

Whilst the bishops of Pomesania resided in their own castle to the south of the cathedral in Marienwerder, their other residence was in Riesenburg. Its location, situated between two lakes joined by a canal, was strategic. The early phases of the colony and stronghold built by the Order are only known from Peter of Dusburg. Construction on the episcopal castle in brick began from 1276 and would not be completed until the mid-fourteenth century. Cartographic and iconographic sources suggest it was a three or four-wing quadrangular structure with a *Dansker* projecting from the north side. Very little of the structure survives and recent excavations have focused on the courtyard and cellars with the aim of conserving and restoring them (Figure 6.6). The castle was situated on a high outcrop overlooking the planned settlement



FIGURE 6.6 Part of the area uncovered by excavations in the bishop's castle in Prabuty (Riesenburg)

to the south-east, granted town rights in the first two decades of the fourteenth century. Both town and castle were integrated through a circuit of defensive walls and strategically located on defensible terrain which sloped down on three sides. Where the topography was more accessible in the southern and part of the western side of the town, the walls were strengthened with towers and fronted a wide moat. The castle passed into the hands of the Prussian dukes in 1527, and would be significantly damaged (along with the town) by two subsequent fires (*ibid.*, pp. 243–248).

Ermland

The Bishopric of Ermland was established in 1242 and represented the largest, self-contained state within the Order's Prussian territories with its diocesan boundaries encompassing 19,800km² (Radzimiński, 2008, p. 146). The cathedral Chapter was initially based in Braunsberg from 1260 and transferred to Frauenburg (Frombork) in the 1280s. The bishops of Ermland built 14 castles on their lands, consisting of nine episcopal residences at Wartenburg, Bischofsburg (Biskupiec), Bischofsstein (Biszynek), Braunsberg, Seeburg (Jeziorany), Heilsberg, Wormditt (Orneta), Röbel and Schmöleinen (Smolajny), and four belonging to the Chapter at Frauenburg, Allenstein, Mehlsack (Pieniężno) and Alt Schöneberg (Wrzesina). The castle in Guttstadt (Dobre Miasto) was a

unique example of a seat of a collegiate chapter rather than one attached to a cathedral. This was founded by the bishop and cathedral Chapter in 1341, with the aim of supporting the administration of the diocese. Smaller administrative centres included *Vorwerks* and smaller strongholds, such as the one used by the head of the Chapter at Bogdany, 3km from Frombork, where excavations by Daniel Gazda in 2011 also uncovered traces of Prussian (Warmian) occupation dating to the twelfth and thirteenth centuries. The site had been destroyed during the Prussian Crusade and subsequently re-used within the context of organising the new diocese. Building activities were particularly intensive in this diocese and three phases of constructing sacred buildings in Ermland have been identified: 1249–1360, after 1420 and after 1550. The first phase started late in the thirteenth century. Some would have been in timber, such as the first cathedral in Braunsberg (1251) but, in the fourteenth century, the majority were built in brick. Between the mid-thirteenth and mid-sixteenth centuries there was a single cathedral, three collegiate churches, 99 parish churches (including 13 in towns), four monastic churches and perhaps four cemetery chapels and ten hospital oratories. Of these, around 70 per cent of the churches have survived along with around 65 per cent of the castles, whilst most of the medieval urban fabric from the towns in this diocese has gone (Kutzner, 1978, pp. 59–60).

The bishops of Ermland and their Chapter aspired to political independence more than any other episcopal group in Prussia, and this is particularly reflected in the decoration of some of their sponsored buildings. One of the best examples is the episcopal complex at Frauenburg (Figure 6.7). Here, the bishop's castle, cathedral and associated planned town were badly damaged during the Second World War. Restoration and conservation from the late 1950s went hand in hand with archaeological investigations. No evidence of an earlier Prussian site was found underneath the complex built by order of the Ermland Chapter on a raised escarpment. The cathedral precinct which contained the canons' residence was situated in a suitably defensive position, completed at the end of the thirteenth century with the construction of a significant moat across its southern side, 15m across and 4.5m deep. The cathedral was rebuilt from brick over a period of many decades, from 1329–1388, and lent its name to the settlement previously referred to as *Civitas Warmiensis*. A cemetery was uncovered during the excavations consisting of shroud burials of men, women and a significant proportion of children aged below 14 years (37 per cent). This was situated on a narrow strip between the southern wall of the building and the moat, and excavations revealed burials continued here until the mid-fifteenth century. At this time, the complex was rebuilt following damage sustained during the conflict in 1454–1455 (Gajewska & Kruppé, 1973; see also chapter 8). In the latter decades of the fourteenth century, Bishop Henry (III) of Soerborn commissioned a 10m-high statue of the Virgin which was placed above the main door to the cathedral in the gable over the western elevation of the nave. The sculpture, which was eventually removed in 1839, emulated its earlier

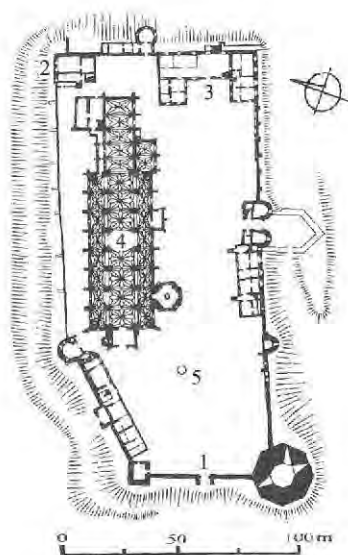


FIGURE 6.7 Plan of the fortified complex at Frombork (Frauenburg). Key: 1: main gate; 2: residence of the Chapter; 3: episcopal palace; 4: cathedral; 5: well (aft. T. Zagrodzki and A. Ronski in *Hafika*, 1999)

and more famous equivalent at the convent in Marienburg (Malbork) (see also chapter 4). By adopting the Order's use of Marian imagery, the Chapter of Frauenburg emphasised the Virgin's protection and, by extension, their aspiration to sovereignty in Ermland. Indeed, the design of the fortified cathedral complex itself visually reinforced the authority of the Chapter (Dygo, 1989, p. 69). This aspiration had already been recognised externally in 1352 when the Bishop of Ermland was given the title of 'prince-bishop' by the Holy Roman Emperor Charles IV, changing the status of the see.

Other expressions of authority can be seen beyond the diocesan residences. For example, the construction of church galleries has been linked to visual expressions of authority by the local elite, whether bishops or the Teutonic Order. In Heilsberg, the construction of the eastern gallery in the parish church can be dated to the third quarter of the fourteenth century, shortly after the town became the main episcopal seat (Soćko, 2005, p. 60). But episcopal authority was strikingly visible in the adjacent castle complex, segregated from the town by the River Łyna. This was originally a watch tower built by the Order, which passed into episcopal hands in 1251. The structure was replaced by a residence which was situated between two fortified outer baileys. In 1308, the town was founded on the other side of the river, with its own defensive circuit and linked to the bishop's castle by a single bridge and guarded by a fortified gatehouse. Construction on the brick castle, with lower levels of stone, began in the mid-fourteenth century and the high castle followed a conventual

layout consisting of four wings with vaulted cellars, a chapel and chapter house on the first floor, all arranged around a cloistered courtyard (Haftka, 1999, p. 152). Recent restoration work in the cloisters uncovered wall paintings dating to the late-fourteenth century, representing St Catherine and scenes from the life of Christ. Prestigious and expensive building materials were shipped in to decorate parts of the castle, such as Gotlandic limestone, a clear designator of elite status that was used in major civic buildings and the Order's convents. The castle complex was extensively used in the post-medieval period and excavations in the outer bailey of the castle in 2008 and 2009 reached a depth of 6.5m. The castle was badly damaged by a fire in 1559 and subsequently rebuilt in the manner of a palatial residence. It was occupied until 1794, after which it fell into ruin. The surroundings continued to be significantly altered and, in the early-twentieth century, the site was used as a hospital and military store, which resulted in significant conservation works. As a result from an archaeological perspective, it is one of the more taphonomically complicated sites associated with the bishops of Ermland. However, its layout and structure suggests a strong emulation of the Order's conventual castles, not only reflecting the lifestyle of the community but also using an established spatial and architectural vocabulary of authority.

Smaller castles consisted of parallel wings, linked by adjoining walls and enclosing a courtyard. The castle of Allenstein was built on a rectangle, with two wings on its shorter side and a large tower situated on its south-western corner (Figure 6.8). Both wings were connected with high walls which had overhanging timber galleries. In the eastern wall, a gate-tower with a barbican was replaced by baroque buildings in the eighteenth century. In the mid-fifteenth century or in the late 1530s, a fourth corner tower was added to the castle; in the nineteenth century three corner towers and parts of the western gate were demolished and the moat partly filled in. Of these outer fortifications, only fragments of the north-eastern tower and part of a gate house with a semi-circular tower remain along with sections of wall (Domańska, 1970). The castle at Braunsberg was built in several phases, starting off as a simple wing enclosing a courtyard with walls and a gatehouse just after 1273. This was then expanded to two enclosed areas with an additional wing in this second enclosure as the castle function developed before 1300; finally, in the fourteenth century, the earlier part of the castle was effectively an outer ward and an additional wing was constructed with ramparts and walls extending from the main gate across the Pasłęka (Narwocki, 1970). The castle was badly damaged during the nineteenth and twentieth centuries and today is only represented by a single, square brick tower, which contained the main gatehouse. In the 1320s, an upper storey with a chapel was added above the gate, which has been interpreted as visibly underlining the sacral authority of the bishops of Ermland (Soćko, 2002). Up to 1340, this castle functioned as the main diocesan centre and remained episcopal property until 1772.



(a)



(b)



(c)



(d)



(e)

FIGURE 6.8 Five views of the Chapter's castle at Olsztyn (Allenstein): (a) south-east facing, (b) north-east facing, (c) south-west facing, (d) tower on the south-west corner and (e) the courtyard with a view of the northern and eastern wings

The diocese of Ermland saw significant investment from both the bishops and the Order in parochial infrastructure. The majority – 183 churches – would be built on the lands of the Knights, predominantly in the east. By the start of the fifteenth century, there were 286 parish churches in Ermland, of which 35 were located in towns (Radzimiński, 2008, p. 162). After the Thirteen Years War in 1466, the bishopric passed into Polish hands and the German prince-bishops were subsequently replaced by Polish archbishops; however, only a few decades later, the territory was exempted from secular rule and came under the direct control of the papacy. This continued despite the secularisation of the Order in 1525.

Sambia

The Sambian bishops established their diocesan Chapter in the latter decades of the thirteenth century. Their base was initially the residence at Schönewik, later named Fischhausen (Primorsk). In the mid-fourteenth century, the Chapter – and the diocesan seat – was transferred to Königsberg following the completion of the cathedral (ibid., pp. 148–149). The Sambian parish system was most closely linked to reorganisation of tribal territory, where churches were built at the administrative centres of the *Kammerämter* and served all Prussian villages within each district. As a result, the number of parishes remained relatively small, with around 50 documented. The most important and wealthy parishes were situated in towns, especially in Königsberg, and only in the fourteenth century would German colonists begin to build churches within their own settlements (ibid., p. 161). The administration of the parishes of Königsberg was split between the Teutonic Order, who governed the *Aldstadt* or ‘Old Town’ with its main parish church, the Sambian bishops whose seat was focused on the cathedral dedicated to St Adalbert and St Mary, and the artisan district of Löbenicht, where Cistercian nuns had established a convent. The cathedral was situated on a marshy island named Kneiphof, and its foundations were stabilised with timber piles before construction in brick began c.1333 and was completed half a century later, although problems with subsidence in the unstable soil echo similar concerns at Marienburg. The structure may have been built to withstand attacks; the walls were 3m thick in the eastern facade, and its interior became an interesting focus for crusading ideology associated with the *Reisen*. Following the Reformation in Prussia, the cathedral became the main centre of Lutheran preaching in the shrunken duchy. Badly damaged during the Second World War, the building was restored in the 1990s, although it had already been heavily modified in the early years of the twentieth century with the aim of restoring its late medieval appearance (Sezneva, 2005). Excavations in 2008 uncovered a series of graves to the north-west of the cathedral, primarily dating to the fifteenth century and exceptionally well preserved due to the waterlogged soil conditions. They may have represented clerics or another important social group buried in close proximity to the cathedral (Zinoviev, 2009). The 11 documented episcopal castles

of Sambia are least well known archaeologically, and many remained vulnerable to Lithuanian incursions throughout the fourteenth century. For example, the castle at Saalau (Kamienskoje), which came into possession of the Sambian Chapter in the mid-fourteenth century, was destroyed on a number of occasions and a more durable brick structure was constructed from 1390, only to burn down in the sixteenth century. Future archaeological work, perhaps associated with the badly needed conservation of many of these sites, will invariably shed vital new light on the organisation of authority and religion at the frontier of the Order's state. This region remained a volatile borderland with Lithuania and the Sambian castles, intermittently attacked, provided a level of security which, in turn, stimulated colonisation. It also contained the largest intact proportion of the indigenous Prussian population, presenting an ongoing challenge to the evangelising agenda of the bishops, monasteries and the Teutonic Order.

The Prussian bishops were clearly important political figures and used their residences and sacral buildings to express their ideology in much the same way as the Teutonic Order. The three dioceses incorporated within the Order's structure ensured a level of integration and homogeneity in the administration of medieval Prussia. Prussian bishops invested heavily in the construction of impressive cathedral complexes. They operated similarly to bishops in the Holy Roman Empire, who also constructed fortified residences, possessed military resources and administered the settlement and development of territory. Their castles were relatively small in comparison with the Order's major convents and also differed in design, consisting of enclosed two (e.g. Allenstein) or three-winged (e.g. Briesen) structures. Where the conventual design was adopted as at Marienwerder or Heilsberg, these castles were clearly designed as secure residences for religious communities living a communal lifestyle split between prayer and diocesan administration. The Order had very little input in the foundation of parish churches in the dioceses of Kulm and Pomesania, whilst in Ermland and annexed Pomerania it sponsored the majority of parish churches on its lands (Radzimiński, 2008, pp. 161, 163). Within the Order's state, urban communities represented an equally important group of sponsors, driving the construction of some of the largest and most elaborately decorated churches.

Urban churches

The largest and most elaborate medieval Prussian churches were constructed in towns. Early church buildings may have been wooden in some cases, but they were quickly replaced by brick structures. The cathedral in Kulm is the most important religious building constructed in the mid-thirteenth century in Prussia and, from this early phase, the walls around the presbytery, the transept and the nave have survived. This type of enclosed presbytery was subsequently replicated in other parts of Prussia. It is also found in the Franciscan church in Kulm from the end of the thirteenth century, as well as the church of St James in Thorn

constructed from 1309 (Mroczo, 1974, p. 297). The main towns such as Thorn, Elbing, Danzig (Gdańsk) and Königsberg saw significant investment in church building already from the later decades of the thirteenth century, reflecting the wealth and stability of their growing populations. This investment was not solely restricted to the church buildings themselves, but also to the furnishings and decoration within them. For example, a bronze font was sponsored during the first phase of building the church of St John the Baptist and St John the Evangelist in Thorn at the end of the thirteenth century (Jakubek-Raczkowski, 2010a). Urban areas concentrated churches and resulted in ‘sacred topographies’, with striking differences between the central location and design of the main *Pfarr* churches compared with the outlying monasteries. As towns grew and new central foci emerged, the prominence of earlier churches could become realigned, as in the case of Thorn, where the church of SS. John and John became peripheral to the later market square situated to the north. The intensive construction of new urban churches and the expansion of older buildings throughout the fourteenth century points to the fundamental role played by the Church in town life. Whilst the Order initially stimulated church development, merchant communities and patricians quickly took over the sponsorship of religious buildings. Smaller towns saw limited church construction, but the form of these buildings would be influenced by the larger churches in the older, established urban centres. In this respect, a visible cultural hierarchy developed between larger and smaller towns in the Order’s state (Krantz-Domasłowska, 2010, p. 47). Whilst there was much variation between urban churches, a level of unity was imposed with the creation of religious and secular zones within the integrated circuit of defensive walls, linking the built up area with the Order’s or bishop’s castle. This can be demonstrated with a comparison of Thorn and Danzig. Both towns were typical of north-German trading centres aligned to rivers, in contrast to the chequer-board plan characterising many smaller towns in the Order’s state (see also chapter 5). Those urban churches which have survived into the present day in one form or another are typically studied from the perspective of architectural history, whilst archaeologists have shed light on the earliest phases of church construction and their relationship with town development.

There were four main churches in Thorn. The two oldest were wholly segregated from each other in the earliest phase of the town. The church of SS Johns situated in the earliest (and later southern) part of the Old Town represented the main parish church of the early colony constructed in the third quarter of the thirteenth century, as suggested by the southern and northern parts of the eastern elevation of the nave. By the end of the thirteenth century, a presbytery was also built. With the expansion of the town and the relocation of the centre to the main market square, the church lost its central focus, although it was still the most visible structure from the riverside (*ibid.*, p. 52). The extra-mural church of the Virgin Mary attached to the Franciscan friary, founded in 1239, became incorporated into the north-western part of the expanded town. Rescue excavations at the church focused on the sacristy,

presbytery and part of the nave. Gothic walls were uncovered from the earlier building phases of the structure, along with graves dating from the sixteenth to eighteenth century. The continued use of the church for burial, which passed out of the ownership of the Franciscans during the Reformation, resulted in the mixing of earlier cultural layers. Outside, excavations focused on the eastern part of the earlier monastery and revealed gothic walls resting on a brick-stone foundation, which was associated with the thirteenth-century construction of the service buildings of the monastery. A well was also uncovered (Szczepanik, 1984, 1985). In contrast, the foundation of the New Town resulted in more regularly situated sacral buildings: the church of St James and the church of St Nicholas attached to the Dominican friary. The main parish church of the New Town was built as a 'basilica-type' structure from the end of the first decade of the fourteenth century, although excavations in 2008 revealed fragments from an earlier building. Likewise, excavations between 1982 and 1989 in the vicinity of the Dominican complex (Dominikańska Street 1-9) uncovered the western parts of the church and identified two building phases (see below). Earlier walls from other churches have also been revealed through keyhole excavations, such as the churches of St Cross, St Laurence and St George in the Old Town (Wały gen. Sikorskiego and 700-lecia streets); the latter had a hospital adjacent to it (Trapszyc, 2002, p. 77). The archaeology of the early phases of Thorn remains patchy, but demonstrates how sacral buildings and their precincts were directly connected with the evolving layout of the double town from its foundation.

North-west of Thorn on the other side of the Vistula, the annexation of Pomerania brought an existing parish network, under the jurisdiction of the bishops of Włocławek, Gniezno and Cammin, into the *Ordensstaat*. Following the development of colonisation, the number of parishes increased to 219 by the start of the fifteenth century (Radzimiński, 2008, p. 162). The most important were situated within the former ducal centre. In the early-thirteenth century, the population of Danzig was served by three churches; one within the ducal citadel dedicated to the Blessed Virgin Mary, the parish church of St Catherine in the Old Town and the church of St Nicholas situated in the Main Town (see also chapter 5). The churches were maintained by regular canons who spoke German. This may have resulted in a failure to completely Christianise the local population, much of which was Slavic, and there is archaeological evidence for the persistence of pre-Christian activity in the town in the twelfth century (Lepówna, 1989). The church of St Nicholas was destroyed by fire, presumably during the Prussian invasion in October 1226. Shortly after, Duke Sventopelk presented the site to the Dominicans and they replaced what was left of the Romanesque structure with a new cruciform brick church and friary, following significant investment from the leading town families (Pac, 2003). The rebuilding of the church has left significant archaeological traces and the complex was destroyed in 1308; the early stages of rebuilding of the subsequent Dominican complex in the north-west

of the Main Town remain unclear (Szyszka, 2006, pp. 124–125); however, the foundations of a limestone oven dating to the end of the thirteenth/start of the fourteenth century may represent part of this rebuilding and the church of St Nicholas was also reconstructed. The complex would burn again in 1423 and excavations in the 1950s revealed both the destruction layer and the rapid rebuilding as evidenced by a grave slab dating to 1425 (Możejko *et al.*, 2006, pp. 160, 171). When the Order took over the town, it came to oversee all clerical appointments, although this situation changed in the second half of the fourteenth century when the urban nobility became a powerful group in their own right. Tension also existed between the Order and the Dominicans, who maintained their Polish contacts. The political struggle between the Order and the civic elite can be mapped in the diversity of church construction within the town in the fourteenth and early-fifteenth centuries (see also chapter 5). For example, the heightening of the tower of the Church of St Mary in the Main Town in the mid-fifteenth century represented a striking break from the Order's control of building works in the town (Pac, 2003, p. 228). This church would, in turn, inspire the monumental rebuilding of urban churches in towns such as Elbing, Thorn and Braunsberg in the fifteenth century following the gradual breakdown of the Order's state (Krantz-Domasłowska, 2010, p. 64). Parish churches and their relationships with the civic elite formed one crucial social dynamic in Prussian towns. Another was represented by monastic houses.

Monasteries and the missionary impulse

Monastic movements had been involved in missionary activity in the southern Baltic from the early-twelfth century. St Norbert, founder of the Premonstratensian Order, led the way as Archbishop of Magdeburg in attempting to convert the pagan Slavs near his see in the Havel valley. The process of *Ostsiedlung* was accompanied by Christianisation but, as discussed in the previous chapters, this was paralleled by the expansion of the Polish state. Cistercian houses in the southern Baltic were connected to the expansionist agenda of the Danish crown (Szacherska, 1967) but, from the early-thirteenth century, Polish Cistercian missions focused on the Kulmerland (see also chapter 2). Following the onset of the Crusade, they were replaced by the mendicant orders, particularly the Dominicans, who played a key role in their fervent spreading of Christianity in the wake of the Teutonic Order's military expeditions, as well as recruiting for the ongoing holy war (Radzimiński, 2008, p. 143). Seeking out the largest settlements to maximise their preaching efforts as well as the security of urban defences, monastic communities tended to be located within or close to towns. Their layouts were determined by the contemporary customs of each order, typically following European trends in layout, with the complex focused on the church, often the earliest building that can be documented archaeologically, and then an associated set of buildings including a refectory, dormitory,

kitchen, infirmary, library and various service buildings. However, their buildings were distinct in that they were built from brick. Whilst the Cistercians were no longer active in missionary activity in Prussia during the crusading period, they exerted a formative influence on the decorative architecture of the Order's convents and churches. Tiles decorated with interlaced, quartered circle crosses (*Kreuz aus Viertelskreisen*) were popular in the monasteries of the Cistercians in the twelfth and thirteenth centuries (e.g. Fontenay, Arnsburg, Bebenhausen), and similar designs dating to the end of the thirteenth century were found in association with the earliest church levels in Marienburg castle, and from excavations in the refectory in Thorn castle (Pospieszna, 2010c). Indeed, both the Cistercians and Dominicans are credited with popularising building in brick in the *Ordensstaat* and influencing the development of the Order's early buildings (see also chapter 3). The proliferation of monasteries increased the connections between the Order's state and the rest of Europe, although these relatively small communities were at the fringes of the distribution of European monastic houses. Whilst political tension existed between some monastic houses and local commanders, or the Order in general, the majority were supportive of the ruling elite in the *Ordensstaat*.

The Teutonic Order encouraged the foundation of Dominican houses in Prussia in order to lead missionary activity, to provide for the spiritual needs of the growing urban populations and to support the ideology of the Order's crusades (Ratajczak, 2004, p. 155). The Dominicans played a key role in recruiting for the early crusades of the Teutonic Knights, and reflected the shift in papal policy from supporting Bishop Christian to the military order. In the 1230s, the Dominicans were exhorted to preach crusades to support the Teutonic Order's campaigns in Prussia. In 1232, Dominicans in the provinces of Madgeburg (region) and Lund (medieval Denmark) were allowed to give their listeners a 20-day indulgence and to absolve those who had been excommunicated for arson or violence against clerics, if they took the cross for Prussia. But echoing their contemporary role in the Languedoc as combaters of heresy, the Dominicans were actively involved in both evangelising and local politics. In the early decades of the Prussian Crusade, the Teutonic Knights encouraged the Dominicans to stem the influence of the Cistercians and Bishop Christian (Nawrońska, 2003, p. 312).

The Dominicans first became involved in missionary activity in the south-eastern Baltic region after the foundation of their house in Danzig through the invitation of Duke Sventopelk in 1226/1227, supporting the efforts of the earlier Cistercian mission which foundered after the abduction of Bishop Christian (Dekański, 2000; Fønnesberg-Schmidt, 2007, p. 196). Here, the Dominican church represented a new type of building, marking Gdańsk as a Christian city (Pac, 2003, p. 228). Relatively little has survived above ground of the Dominican houses in Prussia and much more is known about their activities from written sources. Following quickly in the wake of the Prussian Crusade, the Dominicans established houses in Kulm in 1233–1238, in Elbing in 1238

and, finally, in the New Town of Thorn in 1263 (Radziwiński, 2008, p. 174). With the annexation of Pomerania, two additional Dominican houses were incorporated into the Order's state, and prompted a programme of rebuilding in Danzig. Here, the fourteenth-century Dominican church was constructed on the remains of an apsidal Romanesque church dating to the mid-twelfth century. The church had been initially expanded by the Dominicans, with the addition of two brick chapels and a tower to the stone presbytery, whilst a new brick church was constructed in the second half of the thirteenth century and was also incorporated into the larger monastic complex in the fourteenth century (Zbierski, 2003, p. 406). The development of the complex would result in an enclosed cloister by the fifteenth century. This was destroyed in 1813 and the rest subsequently dismantled (Gzowski, 2003). The Dominican house in Elbing was founded from the Polish headquarters of the order in Cracow and was situated in the north-western corner of the Old Town within the walls (Figure 6.9). By 1246, the church (dedicated to the Virgin Mary) and monastic complex was being constructed and the friars owned a brickyard for this purpose which was later granted to the town. Dominican churches in Prussia followed the same template as elsewhere in Europe, with large naves to accommodate urban congregations. The church presbytery was first constructed in brick in the second half of the thirteenth century followed by the nave. In the fourteenth century, this building was raised and in the southern side a second nave was added. From the north, the church was attached to an irregular cloister. Excavations in 1975 and 1977 revealed that the northern courtyard of the complex contained a series of largely timber service buildings until the mid-fifteenth century, with a cemetery situated in the eastern part of the precinct. Excavations in 1959 revealed that the thirteenth-century floor surface of the church and southern cloister was 85–90cm lower than the modern level

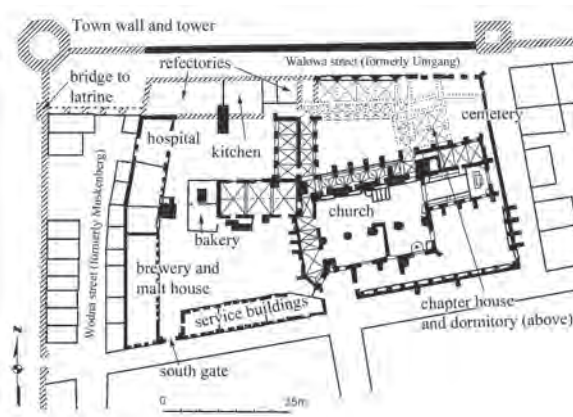


FIGURE 6.9 Plan of the former Dominican monastery at Elbląg (Elbing) (redrawn aft. Nawrońska, 2003)

(Nawrońska, 2003, p. 322). As in Kulm, the Dominicans largely catered for the spiritual needs of the local urban (i.e. colonist) population. The complex in Elbing was eventually destroyed by fire in 1504 (*ibid.*, p. 324). A Dominican house had been established in Dirschau (Tczew) in 1289, two decades before the town was annexed by the Order. The complex consisted of a church, friary and school. Excavations and architectural surveys revealed the church was initially a simple hall building (22 × 13.5m) with a timber roof. An oratory was soon constructed and a brick wall segregated the precinct from part of the town, although the monastic complex was fully integrated within the town's defensive circuit. The southern part of the complex may have included service buildings as suggested by fragments of medieval walls found within the cellars of later houses in this area (Haftka & Jesionowski, 2003).

The relationship between the Dominicans, preaching the ideology of poverty, and the Teutonic Order became strained from the mid-thirteenth century, although this was not reflected in visual expressions of the Order's crusading ideology. In miniatures of late-fourteenth-century Prussian apocalypses showing the struggle between the Order and paganism, both a knight and Dominican friar are shown alongside each other as having found salvation in heaven (Pac, 2003, p. 227). Moreover, in 1407 the Order sponsored the foundation of a Dominican house in Nordenburg (Krylovo) within the diocese of Ermland, although this was relocated to the relatively newly established town of Gerdauen (Żeleznodorożnyj) two decades later (Radzimiński, 2008, p. 174). However, from the perspective of the Order there was a controversial political dimension to the mendicants' presence, particularly in Danzig, where the Dominican monastery not only remained subservient to its founding house in Cracow, but also facilitated the movement of Polish friars into the Order's territory (Możejko *et al.*, 2006, p. 161).

Shadowing the presence of Dominicans in Prussia were the Franciscans, who established two houses in the Kulmerland in the early decades of the Crusade: in Thorn in 1239 and in Kulm in 1257, and three in Ermland at Braunsberg, Wehlau (Zamiensk) and Wartenburg. With the annexation of Pomerania, the house at Neuenburg (Nowe) was incorporated into the Order's state and, in Danzig, a Franciscan friary was founded by the council of the Main Town in 1419 (Radzimiński, 2008, p. 174). Franciscans had been involved in missionary activity in Prussia after 1260, but subsequently catered for the spiritual needs of the urban populations. Other monastic groups were also attracted to the Order's state. Two houses of regular canons were established in Dietersdorf (Bobrowo) and Briesen in 1251, although the foundations were not carried through (Mroczo, 1974, p. 297), whilst four houses of Austin friars (Augustinian Eremites) were also founded in the Order's state in the fourteenth century, first in 1347 near Röbel by the initiative of the Bishop of Ermland. Although many of these groups have been regarded as essential supports to the Teutonic Order, the churches of the mendicants in Prussia (and elsewhere) have also been interpreted as

an expression of deliberate opposition to mainstream ecclesiastical architecture with the popular use of asymmetrical plans (Mroczo, 1975). Although Cistercian involvement in missionary activity was ousted by the mendicants, houses of the order were present in medieval Prussia. A convent of Cistercian and Benedictine nuns was initially founded in Kulm in 1266 and, in 1311, the Order founded another house by the church and hospital of the Holy Ghost in Thorn, situated by the southern wall of the town. The nuns relocated to another building next to the church of St Cross in 1327 near the Kulm Gate, although this would be destroyed by fire in 1391. As a result, part of the community relocated to the village of Szynewald near Graudenz (Grudziądz), and a part near the church of St James in the New Town of Thorn. A third convent was founded in Königsberg in 1349. Additional Cistercian houses were incorporated into the Order's state with the annexation of Pomerania, most famously the abbey at Oliwa. The presence of relatively more obscure monastic communities included the foundation of a Brigittine convent named Fons Mariae (Marienbrunn) in Danzig in 1396; the relics of St Bridget had passed through the city in 1373 and, two years before the pope had approved the convent's foundation, the town had been the setting for Dorothy of Montau's vision of the saint (Morris, 1999; Radziwiński, 2005b, p. 60). A Carmelite house was founded shortly after in Danzig and, by the end of the fourteenth century, by the church of St Nicholas there was a community of Dominican tertiary nuns, as well as Beguines and a convent of Franciscan Tertiaries in the Old Town (Czacharowski, 1983, p. 98). What is clear is that the majority of monastic houses in Prussia were associated with urban communities, and their impact on evangelising the surviving Prussian population – especially in Sambia – would have been limited.

In the main towns of the *Ordensstaat*, monasteries served the spiritual needs of the local population but also founded hospitals and schools. Hospitals and leper houses were located predominantly in the western part of Prussia, along the main rivers, with only a few in the more volatile eastern frontier region. Prussian religious communities also drove the spreading of literacy. Many scholars have written on the illiteracy of the Teutonic Order, although in a broader sense the clerics of the Order, including members of the hierarchy of the Prussian Church, were literate. Furthermore, the Order's bureaucracy produced extensive documentation. Parish schools were set up at the very latest from the end of the thirteenth century, where writing and reading were taught in Latin, as well as song and religion – also in Polish and Prussian. Following Pope Martin V's encouragement of the appointment of priests who could speak the Prussian language in 1426, a school was established in Heilsberg to train local Prussian peasants for such roles (Radziwiński, 2008, p. 28). Some schools also taught in German. Schools in towns would develop specialised teaching in the fourteenth century. In Kulm, the parish school set up in the thirteenth century would not gain the status of *studium particulare* until the start of the fifteenth century. The initiative of the Order was to develop a university

at Kulm, based on the model of Bologna, and whilst this was not successful, students from Prussia studied in universities in Cracow, Vienna, Prague and beyond, even as far as Bologna and the Sorbonne, although financial problems seem to have plagued many of the students from the Kulmerland and Ermland who had to cut their studies short (Sieradzan, 2005, p. 92).

These schools developed important libraries; the school in Thorn next to the church of SS John and John contained books primarily on religion and law. The books were not only intended for scholars, originating from the wealthier urban families, but also for the intellectual elite of the town. Students would go on to university from this school (*ibid.*, p. 91). A few of these school buildings have survived. In Marienburg, the school was a brick building situated next to the parish church, founded by Grand Master Winrich of Kniprode (1352–1382), and maintained by the town. There is a wealth of written sources pertaining to this school; it had four teachers by the end of the fourteenth century, and Peter of Augsburg was trained here. Alongside children from wealthy families in the town, a number of outside students also studied here, most probably candidates for the Order. Monasteries also developed schools. The Dominican school in Kulm was established from the end of the thirteenth century, in close proximity to the Franciscan or Cistercian convent. The library of the Dominican house in Thorn contained around 200 books, in Danzig around 707, which included copies of the Old and New Testament, various theological, liturgical, mystical, philosophical, legal and hagiographical texts. In Marienburg and Dirschau, the medieval school buildings have survived largely intact, the latter within the superstructure of a nineteenth-century building (Haftka & Jesionowski, 2003, p. 342). In Elbing, the oldest school was situated next to the parish church of St Nicholas (Rybacka Street 14) and, at the start of the fourteenth century, there was also one attached to the Dominican friary (Nawrońska, 2003, p. 326). Literacy in Prussia developed to meet religious and bureaucratic needs, but was restricted to particular groups and was ephemeral to the process of religious conversion. The emergence of pilgrimage in Prussia on the other hand contributed towards the proliferation of religious devotion, although this was largely restricted to the urban colonies and the Order's convents.

Pilgrimage and saints' cults

Pilgrimage was at the heart of late medieval Christianity and the crusaders themselves were seen as a type of pilgrim; crusades were penitential wars. Outside the military context, this devotional practice required the presence of relics which people could visit and venerate, with the aim of obtaining a cure, an answer to a prayer or as a redemptive act of penance. Written sources indicate that relics were initially brought into Prussia by the Teutonic Order during the crusading era, and were used in much the same context as they had been in the Holy Land. The Order venerated four saints above all others: the Virgin

Mary, St Barbara, St Elizabeth and St George. The crusading era in Prussia in the thirteenth century is associated with intense religiosity, when relics and the spiritual patronage of saints were regularly invoked. With the focus on Prussia, it is easy to forget the Order was actively – and primarily – involved in the Holy Land throughout most of the thirteenth century. The character of its religiosity developed in both regions and the connection between key saints, the Order and crusading is brought together in a single vignette on the *Gnadenpforte* of Bamberg cathedral, dating to c.1220–1237. The focus of the tympanum is the Virgin and Child, flanked by St Peter, the Holy Roman Emperor Henry II with Empress Kunegunda, St George, Bishop Ekbart and the cathedral rector. At the feet of the Virgin kneels a knight dressed as a crusader, perhaps Hermann of Salza associated with Bishop Ekbart; both were linked by their involvement in the Fifth Crusade. If this is the case, here the Grand Master is supplicating the Virgin on behalf of the Order (Braunfels-Esche, 1976, p. 91). However, the sacred topography of Christian Prussia – the network of shrines linked to specific saints – was established during the crusading period by the Order and, in Peter of Dusburg's narrative, this is sometimes framed in miraculous terms. During the war between the Order and Duke Sventopelk, the head of St Barbara was discovered by the Teutonic Knights concealed in a box in the cellar of the Pomeranian stronghold at Sartowitz (Sartowice), at which point she became an important patron saint for the Order in Prussia, particularly around Kulm, and was celebrated in a poem (now lost) by the Grand Master Luther of Brunswick. The placement of the relics of St Barbara into the castle chapel at Althausen Höhe (Starogród) – documented in 1413 as containing one of the arms and part of the skull – created an important centre of pilgrimage within the Order's state, visited, for example, by the Bohemian King Wacław I. The relics were relocated to Marienburg at the start of the Thirteen Years War (Poliński, 2003, p. 240). Although St Barbara's cult was popular in various regions of Europe, the discovery of her relics gave her particular local significance within the Order's state.

Relics were deposited in the chapels of the Order's castles, the main focus of the religious life of the brethren. Whilst chapels have rarely survived intact (see also chapter 4), inventories from the end of the fourteenth and fifteenth centuries indicate that a suite of saints was venerated through a number of pictorial representations, relics and altars. For example, at the Order's convent in Osterode (Ostróda) there were four altars and relics of St Sigismund, St Helen, St Martin, St Catherine, St Hubert and the 11,000 Virgins. However, even this information is very fragmentary – often only a single line in a document – and the sacral components of many episcopal and Order chapels remain unknown (Rozynkowski, 2006, p. 165). The use of saints within the decorative schemes of the Order's castles was found beyond the chapel, and represented the dissemination of the Knights' ideology, particularly associated with the Virgin (see also chapter 4). The refectory, alongside the chapter house, was one of the most important spaces for reinforcing the Order's mission visually. In Lochstedt

(Pavlovo) castle, for example, the refectory was decorated with various religious scenes in the mid-fourteenth century, including St Christopher the patron saint of the good death, interpreted as resonating with the Order's willingness to suffer hardship and death (Domasłowski, 1978, p. 153). St Christopher was one of a number of popular European saints adopted within the Order's state. Two well-preserved examples of sculpted heads of John the Baptist are known from Prussia: from the church of the Cistercian nuns in Kulm, dated to c.1380 and from Strasburg. They were devotional foci that would have been associated with curative powers and also been included in the liturgical celebrations of 29 August – the day of John the Baptist's beheading (Błazejewksa, 2010b). Unlike St Barbara, there is a broader European context for this particular cult. Images of the head of John the Baptist become increasingly popular in the late-thirteenth century across Europe after the acquisition of the saint's relics during the Fourth Crusade and their transference to Amiens. The fourteenth century saw the development of pilgrimage infrastructure with the construction of a number of hospices for pilgrims and travellers, often referred to as *Elendehöfe* (Horanin, 2005). One of the most notable examples of this was the hospital of St Elizabeth in Danzig, which initially started off as a pilgrim hospice and then under the auspices of the Teutonic Order became converted into a general hospital (see above).

Local pilgrimage cults developed within the context of active crusading and the miraculous lives of pious individuals. Pilgrimage was an important activity for the participants of the *Reisen* with the cathedral in Königsberg representing the main focus of devotional activity. Here, alongside the memorials of knights who fought and died in the ongoing holy war against Lithuania was an altar dedicated to St George – the most important military saint alongside the archangel Michael (Paravicini, 1989, p. 308). Whilst in Königsberg, crusaders also made pilgrimages to the nearby churches of St Catherine in Arnau and Juditten, and to the chapels of St George and St Anthony in the suburbs (*ibid.*, p. 305). The chapel of Brandenburg castle (Ushakovo), which contained the relics of St Catherine, was another important centre of pilgrimage for visiting dignitaries, whilst the most important local pilgrimage site in Sambia was the shrine of St Adalbert at Tenkitten (Letnoje) near Fischhausen, which was functioning by the fifteenth century. The chapel provided a physical focus for the cult of the regional saint, and the most important Prussian martyr, in the absence of a known location for his death (Rozynekowski, 2006, p. 200). In contrast, pious individuals could form the basis of local posthumous cults. St George's hospital outside Kulm was founded by Jutta of Sangershausen; two decades after her death whilst she was in the process of being canonised, pilgrimages were already being made to her grave (Urban, 2000, p. 170). Arguably the most important 'home grown' saint in Prussia was Dorothy of Montau. In the summer of 1391 Dorothy, an exceptionally devout widow of a Danzig armourer, came to Marienwerder and, on 2 May 1393, with the permission of the Chapter and the Teutonic Order, she moved into a cell built up against the wall of the cathedral and began to live as

an anchorite. She became known for her visions and her biography compiled by her confessor would be widely circulated. She remained in the cell until her death in 1394, at which point she became popularly and unofficially regarded as a saint, one of a host protecting and representing the Order's state in Prussia. Her decorated grave became the focus of a pilgrimage cult which was eventually suppressed in 1544 by the Protestant bishop; in the seventeenth century bricks and stones from her cell were brought to Thorn by a Jesuit and installed as relics in the church of St John (Wiśniewski, 2009, pp. 10–11).

More extensive evidence for pilgrimage is represented by badges brought back from shrines in other parts of Christendom, thrown away or deliberately deposited and recovered during excavations within the Order's former towns. The largest reported concentrations have been found in Elbląg, Gniew and Gdańsk, mostly dating to the fourteenth and fifteenth centuries (Rębkowski, 2004). Badges from major European shrines have been recovered, for example the medieval residents of Elbing visited Maastricht, Cologne, Compostela and Rome, but over half the pilgrim badges found in southern Baltic towns can be linked with the cult of the Virgin. The presence of a pilgrimage infrastructure in medieval Prussia, as well as evidence for participation in major European pilgrimages, makes medieval Prussia comparable to other Christian states. However, the constant presence of the Teutonic Order served as a reminder of the penitential nature of holy war against the Lithuanians in the fourteenth century. Participation in the *Reisen* can therefore be seen as the most important and distinctive form of pilgrimage in the Order's state. Moreover, when considering the particular significance of the major Prussian saints such as the Virgin and St Barbara for the Teutonic Order, it is likely the general experience of pilgrimage within the *Ordensstaat* was closely aligned with or shadowed crusading ideology. Whilst the strongest archaeological evidence for personal devotion in Prussia is derived from urban colonies, the extent to which the indigenous Prussian population participated in pilgrimage – an essential part of medieval Christian life – may be revealed by future excavations.

Crusading ideology and religious conversion

The Treaty of Christburg (1249) provides an important insight into the evangelising agenda of the Teutonic Order. For the conquered Prussians, the main guarantee of personal freedom was the acceptance of Christianity, but the stipulations included the end of various mortuary practices, including the involvement of ritual specialists, marriages and offerings to pagan deities especially *Kurche* (or *Kurko*; see also chapter 2). The treaty also required the Prussians to build 23 churches and furnish them, baptise their children within them, to abstain from work on Sundays and during religious festivals, to participate in Eucharistic masses, attend confession and observe fasts (Radzimiński, 2008, pp. 8–9; see also Mannhardt, 1936, p. 42). Particularly aggressive approaches to indigenous cult sites are evident in Sambia. Peter

of Dusburg describes how the sacred grove at Pobethen (Pubetin) was cut down only in the early-fourteenth century; this area was also the site of the documented last stand of the Sambians against the Order in 1277 (Hoffmann, 2000, p. 152). Sambia, in turn, became the main launching point for the Order's *Reisen* against Lithuania throughout the fourteenth century which, given the continuity of pre-Christian practices amongst the indigenous population, may point to a certain tolerance. In fact, the evidence suggests quite the opposite. The earliest known Sambian synodal statutes proscribed the decoration of church altars – an edict aimed at the indigenous population responsible for constructing and maintaining the earliest churches before the arrival of German colonists (Radzimiński, 2008, p. 23). But despite the various ordinances, the lack of clarity in disseminating the meaning of staple Christian concepts and rites such as the Eucharist stalled with later generations of Prussians. The Sambian bishops were evidently aware of the challenge of Christianising the region, but did not have the resources or infrastructure to sustain effective evangelisation.

Not all pre-Christian monuments were symbolically realigned or destroyed during the Middle Ages – several appear to have survived *in situ* intact only to be moved many centuries later. Precedents for constructing churches directly on top of pre-Christian cult foci can be found across the southern Baltic, and accompanied politicised expressions of German and Polish expansion. The church at Kałdus in the Polish/Prussian borderland was built directly over an 'offering stone' associated with a pre-Christian Slavic community, as was the evangelical church in Olsztyn, where a stone interpreted as a pre-Christian monument was discovered under the altar during excavations in 1876 (Hoffman, 1999, p. 5). These interpretations are not wholly speculative, since the significance of large stones and boulders in the pre-Christian landscape is evident. However, there is no equivalent to the replacement of a cult focus as at Frösö in North Sweden, where the church altar covered the remains of a tree surrounded by the deliberately deposited remains of wild and domestic mammals, including bears. Since Prussian cult sites do not appear to have located within settlements, but rather in woods, rivers and lakes, it seems unlikely that churches were typically built on earlier sites. However, the siting of rural parish churches in Prussia remains to be studied in more detail, and new light may be shed by future excavations.

Medieval Christian communities recognised the cultic significance of some of the stones as suggested by fragments of folklore attached to them, for example the so-called 'holy stone' (Święty Kamień) in Tolkmicka has a legend attached to it where it was thrown by a giant, and the Prussians were thought to venerate it, whilst the stone from Grundfeld in Natangia was called the Devil's stone (*Diabelski Kamień*) (ibid., pp. 6–7). In Długi Kąt near Pisz in Galindia is a presumed cult site demarcated with stones and named *Pogański Sqd* (Heidengericht or 'pagan court'). These names suggest that in some areas incoming Christian colonists shunned places in landscape formerly associated

with pre-Christian cult, and named them accordingly. It is possible that several of the carved stone figures (so-called *baby*, see also chapter 2) were moved from their original location to borders, as a way of moving pagan cult objects to the area traditionally associated with demonic entities in the medieval Christian landscape (Szczepański, 2007, p. 107). One such *baba* appears to have been moved from the stronghold at Christburg (Dzierzgoń) into the nearby sixteenth-century monastery of the Reformed Franciscans (Hoffman, 2004, pp. 68–69). In an exceptional case one effigy was incorporated into the northern wall of St Catherine's church in Prątnica around 1330 (Szczepański, 2007, p. 111). This final example indicates how incoming Christian colonists were more effective at disseminating the new religion than the directed efforts of the Prussian Church. The dramatic increase in the Christian population in Prussia over the fourteenth century, as suggested by trends in church construction, can be directly linked with the proliferation of urban and rural colonies.

Rural churches: Christianisation through colonisation

The process of rural parish development in the conquered territories of Prussia is directly linked with colonisation, although in the case of Sambia, parish churches were initially built to facilitate the Christianisation of the substantial remnants of the Prussian population. Over the course of the fourteenth century, 720 parishes were established in the Order's state, with over 600 churches documented in rural areas, of which just over one-third – around 250 – survive today (Herrmann, 2010). The relative density of their distribution is a direct reflection of settlement, which was most extensive in the dioceses of Kulm and Pomesania, and least in Sambia. The main founders and sponsors of these churches were the peasant colonists who began to settle Prussia from the late-thirteenth century. The sponsorship of churches by the Order is also not entirely clear. The church of St Mary in Juditten, containing preserved wall paintings showing crusading knights in full armour with individual heraldic emblems, including those of Konrad of Jungingen (at the time Voigt of Sambia), is an exceptional survival of the use of parish churches to disseminate the ideology of the Order (Chodyński, 2003, pp. 37–38). Given the level of investment in the building fabric, it is likely that Prussian rural churches were richly furnished, although very little medieval material has survived. Some examples of painted wooden sculpture from the fourteenth and fifteenth centuries now housed in the museums at Malbork, Gdańsk and Olsztyn confirm the level of investment from local communities (for a range of examples see Pospieszna, 2010c, pp. 333–343). With these churches came the dissemination of gothic architecture and Christian art, and whilst there are some similarities with urban churches (Figure 6.10), rural Prussian sacral architecture developed its own distinctive form (Herrmann, 2010) (Figure 6.11). The earliest rural churches built from stone are known from the end of the thirteenth century and consisted of a nave and chancel, sometimes with an added tower; given



FIGURE 6.10 Two views of the restored old cathedral in Kaliningrad (Königsberg)
(M. Brisbane)



(a)



(b)



(c)

FIGURE 6.11 Three *Backsteingotik* churches in the Kaliningrad Oblast (Sambia): Allenau (a), Neu Waldeck (b) and Abschwangen (c) (B. Waldmann)

their chronology the majority are found in the Kulmerland. They were built from field stones, but sometimes bricks were used as well with square and apsidal chancels.

Medieval rural churches in Prussia have rarely survived intact. Of the early churches, four examples in the Kulmerland have preserved thirteenth-century fabric. These are Wielkie Czyste (1246), Bobrowo (after 1251), Srebrniki (after 1262) and Ostrowite (c. 1258–1276) (Mroczo, 1974, p. 297). In the rural churches of Ermland, as at Szalmii, Ełdyty Wielkie and Pierzchały, there are designs borrowed from the neighbouring regions of the Order's state. The churches were initially built without towers, with large, elongated, vaulted presbyteries, then the construction of Frauenburg cathedral, dedicated in 1342 and completed in 1388 marked the end of the first phase of building, described by Kutzner (1978, p. 61) as 'searching for a regional style'. Subsequently, masons travelled around and took the designs of church buildings with them when constructing brick buildings. This led to a form of regional solidarity in church construction and an acceptance of the bishop's territory which was also understood in the context of missionary activity. In eastern Prussia, the first churches were constructed towards the end of the fourteenth-century crusades against Lithuania. Here, the demarcation of parishes was relatively late and chapels and churches were initially established at castles. For example, at Johannisburg (Pisz), the castle chapel functioned as the parish church for nearby settlements until 1424, after which the parish system developed relatively quickly (Białuński, 2002, p. 37); around Lyck (Ełk), the parish of St Catherine is documented in 1440 but this would not develop until the late-sixteenth century. The parish of Lötzen in the commandery of Brandenburg was formed in 1475 to meet the needs of predominantly local Prussian and Masovian settlers. The dense settlement of Prussians in this area prompted the commander of Brandenburg, Bernard of Balzhofen, to populate three settlements with German colonists. The church in Milken was built at the end of the fifteenth century (probably around 1481), located in the centre of the colonising settlement that was strung out along the road leading north to the procurator's castle. The building was converted to an Evangelical church in 1525 following the secularisation of the Teutonic Order and rebuilt after being burned in 1656 (Karczewska *et al.*, 2005, p. 108). It is possible an earlier church existed in this area, but the alternative scenario is of a Galindian population clinging onto its earlier pre-Christian beliefs and living in the shadow of the procurator's castle at Lötzen. Future excavations within the macro-region stretching around Giżycko and Miłki will invariably shed light on the inter-related political structure, settlement, ethnicity and religious practices on either side of the crusading period. It is detailed, inter-disciplinary studies of the development of individual parishes rather than isolated architectural studies of church buildings that will further our understanding of the development of Christianity in the late medieval Prussian countryside.

Beyond the church: the continuation of pre-Christian practices

The survival of pre-Christian practices after the official end of the Prussian Crusade is attested in written and archaeological sources, although neither are detailed enough to indicate the full extent of continuity of earlier beliefs or reinterpretation of the Christian message. The documents of the Prussian Church paint a picture of a polarised, syncretic culture amongst the rural communities of the *Ordensstaat*, juxtaposing Christian colonists with indigenous peasants. Episcopal complaints are noted in 1364 in Elbing, but much more so in the Sambian dioceses where, in the mid-fifteenth century, Bishop Michael Jung made a concerted effort to target remnants of Prussian paganism (Józefczyk, 1995, p. 15). The Sambian Church forbade meetings and ceremonies in forests and groves, as well as the burial of the dead outside of consecrated ground, although complaints into the fifteenth century indicate that basic Christian practices, such as fasting, were not being observed and that fundamental tenets of the faith, as stated in the *Credo*, were not understood (Radzimiński, 2008, p. 44). The statutes of the metropolitan synod in Riga in 1428 include references to burials in unconsecrated ground, feasting at cemeteries in honour of the dead and idolatry (*ibid.*, p. 15).

Archaeologists have discovered that cremation rites were abandoned in favour of inhumation in the thirteenth century, some known cult sites were abandoned and animal sacrifice was discontinued. Of course, the resolution is rarely so fine, but a break in religious practices is evident between the thirteenth and fourteenth centuries, accommodating interpretations of a century for the acceptance of Christianity by significant portions of the indigenous Prussian population. In 1249, the Order required the Prussians to bury their dead in Christian cemeteries, although the evidence for actual cemeteries from the second half of the thirteenth century is sparse. In 1291, a cemetery next to a church is mentioned in Memel, where the Order had maintained a permanent presence from 1252. In 1297, a burial ground is referred to at Preußisch Holland (Pasłęk), again in close proximity to the Order's *castrum*, but references to cemeteries do not start to appear until the fourteenth century, along with the growing Christian population of Prussia, in part provided by colonists (Kosman, 1976, p. 22). Local Prussian cemeteries continued to be used in some areas, although many do not show evidence of burials after the twelfth century. The transformation of earlier burial grounds into non-consecrated zones suitable for the internment of deviants is only tentatively evident in Prussia, indirectly suggested by episcopal ordinances distinguishing burial within and outside consecrated ground (Radzimiński, 2008). In neighbouring Slavic regions this practice is attested. For example, the cemetery in Daniłowo Małe was functioning from the mid-eleventh to the first half of the twelfth century, and from the mid-twelfth to the start of the thirteenth century. There is a third phase of later inhumations which has been interpreted as a group of

outcasts who were buried in the belief they would transform into revenants (Koperkiewicz, 2003, p. 308).

Votive or unusual deposits (including associated bone groups) may well be a continuation of pre-Christian practices, although they are a feature of medieval Christian societies elsewhere in Europe and their diachronicity is not so clearly understood. Some elements of earlier beliefs may even have survived into the nineteenth century (Kosman, 1976, p. 24). The documented disappearance of pre-Christian religion in Prussia varied from region to region; in Pomesania by the end of the thirteenth century perhaps, in Ermland perhaps in the fourteenth or fifteenth century and in Sambia not before the sixteenth century. Actual Christianisation, creating a closer proximity between communities and the Church, would only happen following the Reformation (*ibid.*, pp. 26–27). But even then, commentators on local customs saw them as echoes of earlier, pre-Christian practices. When Mažvydas became pastor of Ragnit (Neman) within the Lutheran Prussian Duchy, he complained to Duke Albert that his parishioners were still practising pagan rites, and during major feast days they also crossed the border to the nearest Catholic (i.e. Lithuanian) churches (Rowell, 1999, p. 196). Praetorius writing on the customs of Nadruvia in the seventeenth century described the ritual killing and consumption of black and white cockerels amongst Prussian families, a ceremony conducted only by men after the drying and threshing of grain. In the same region, earlier cremation rites may have been echoed by the popular practice of burning the possessions of the deceased (Okulicz-Kozaryn, 1983, p. 113). In Lithuania, traditions associated with sacred groves and trees were recorded by ethnographers in the nineteenth and twentieth centuries and, in some cases, these can be associated with archaeological sites dating to the medieval period (Vaitkevičius, 2009). The mixture of Christian and non-Christian customs noted by various commentators in the post-Reformation period has yet to be systematically investigated from the perspective of material culture. Some have argued that echoes of pre-Christian practices last into the modern day not only in former Prussian lands but across territories occupied by Baltic groups and their Slavic borderlands. For example, the custom of placing domestic artefacts such as combs and handkerchiefs into coffins in Masovia was explained as the dead requiring them in the afterlife; moreover in Masovian tradition the Devil was accompanied by a diverse host of infernal beings taking the forms of animals and birds, dwelling in woods and marshes. Given the contact between Masovians and Prussians, as well as the early and late medieval waves of Masovian colonisation of southern Prussian lands, perhaps these folk figures are remnants of Prussian supernatural entities (Cywiński, 2001, p. 88).

The conversion period in Prussia has traditionally been seen through the eyes of Christian chroniclers, which nonetheless provide an impression of a difficult, unstable and, especially in eastern Prussia, protracted process. Despite the savagery of the military conflicts and instances where indigenous populations were offered the choice between baptism and death during the thirteenth-century

crusades, there is some evidence for the continuation of earlier cult practices, particularly in cemeteries. As discussed in chapter 2, cemeteries were important *loci* for cult, rather than simply a place for depositing the dead. A number have been excavated where there is evidence for the continued use of grave goods, and again these should not be regarded as passive adornments but integral to the metaphysical idea of the dead. The Bartian cemetery at Równina Dolna with its inhumed furnished burials continuing in use into the fourteenth century has already been mentioned (chapter 3). A similar situation is evident at the Sambian cemetery at Alt Wehlau near Znamensk in eastern Sambia, within the former commandery of Königsberg (Voluev, 1999). Here, 140 graves dating from the mid-thirteenth century to the start of the seventeenth century were uncovered and revealed the continuity of depositing specific categories of grave goods into the post-medieval period. Nearby, a castle had been constructed by the Order and, in 1361, a church, presumably to counter the persistence of pre-Christian practices. In fact, the foundations of the church truncated and destroyed earlier graves, although there was no evidence for the removal of any artefacts from the earlier burials. By the seventeenth century, the church itself was dismantled. Individuals within the thirteenth- and fourteenth-century group were interpreted as members of the castle garrison – Prussians in the service of the Order – as well as their families and those who had fallen in combat. The burials contained grave goods, most commonly represented by twisted spiral bronze necklaces (so-called *Totenkrone*), single and strung glass beads, various types of brooches, as well as fragments of leather capes, woollen textiles and on the left hands two or three bronze or silver rings, as well as bone combs and bracelets. In three examples from fourteenth-century graves, an iron cross pendant was attached to the necklaces, as were bear claws set in bronze with a pair of trapezoid pendants and knives in leather scabbards were recovered from the belt area. Leather bags with two or three silver Teutonic Order bracteates were also found. From the fifteenth century, female graves were furnished with open-work or star-shaped brooches, rings, knives and leather purses with coins. Knives and rings continue to feature into the seventeenth century, where all-female graves were found in rectangular or oval cuts without coffins. Male burials contained javelin and spearheads, iron and bronze belt buckles and in two cases swords, with burned and broken blades. Spearheads had also been broken and bent. Some elaborate belt buckles decorated with foliage and crosses featured in fourteenth-century graves, along with spear and javelin heads. With one exception, childrens' graves did not contain grave goods. Moreover, in 40 per cent of burials dating to the thirteenth and fourteenth centuries, there were pits relating to the mortuary rituals practised at the graveside, containing charcoal, bird bones and wheel-thrown ceramics (Voluev, 1999).

Not only do the graves suggest the continuation of earlier funerary customs, but the incorporation of new material culture (i.e. coins) and the persistence of the earlier Prussian social structures (Hoffman, 2004, p. 70). The adoption of coins as appropriate grave goods is evident at other sites. At Kotielnikowo (Wargen), a

child's grave was found 'covered' in coins with the crown motif (Type 2) dating to around 1337/1338–1345 (Paszkiewicz, 2009, p. 131). At Równina Dolna, 27 coins were found deposited in graves, the majority of which were Teutonic Order bracteates (Gupieniec, 1958). In neighbouring Lithuania, the widespread inclusion of coins into graves from the fourteenth century has been linked with the adoption of the new commodity within evolving mortuary rites (Jarockis, 2004). The abandonment of grave goods is not a reliable indicator of changes in religious belief (Halsall, 1995), although when documenting categories of grave goods, it is possible to observe standardised trends in burial rites over time. For example, in the cemetery under the Dominican complex in Gdańsk, there is a decrease in grave goods from the mid-twelfth to mid-fourteenth century corresponding to the increasing presence of Christian infrastructure, the decline of pre-Christian practices and the presence of the friars. However, grave goods directly connected with Christian ideology (e.g. brass crosses and medallions) increase again particularly in the seventeenth and eighteenth centuries (Krzywdziński, 2006). Where these grave goods are iterations of an earlier mortuary suite, and with the identification of animal bones perhaps alluding to feasting at the graveside and traces of other funerary ceremonies, there is a sense that some rural cemeteries in eastern Prussia reflect the persistence of earlier traditions. The role of Christianity in these later furnished cemeteries remains obscure and ongoing research will invariably shed more light on this fundamental relationship between the Prussian *Ecclesia* and the conquered indigenous population.

Alt Wehlau is one of a number of documented Sambian cemeteries, but there is also sporadic evidence for the continuity of earlier rites further south. At Stabławki in Natangia, a cremation burial was discovered and allegedly dated to the fifteenth century (Chmielewski, 1963), whilst in Dobre Miasto another cremation burial was excavated and interpreted as belonging to a Prussian warrior on the basis of the body being accompanied by a long, late-medieval sword (Hoffmann, 1993). These examples remain to be synthesised comprehensively, and future excavations in north-eastern Poland and the Kaliningrad Oblast will contribute to our understanding of the continuity of pre-Christian burial rites. The survival of Prussian place names referencing cult sites implies the continuation of pre-Christian beliefs amongst the surviving indigenous population, which in the case of Galindia was recorded relatively late by colonists, only at the end of the fourteenth/start of the fifteenth century and only significantly from 1422. For example, Górkło to the north of Lake Jagodne derived from the goddess Kurko and a village to the north of Giżycko is called Pierkunowo, referencing the god Perkun (Karczevska *et al.*, 2005, p. 57). What is interesting, especially in the light of comparative place name studies, is that Prussian sacred sites – in north-east Poland and the Kaliningrad Oblast – are not as well known as in Lithuania, Belarus, Samogitia, Latvia and Estonia (Vaitkevičius, 2004). Is this a product of relative scholarly interest in the pre-Christian landscapes of these regions? Or is it the process of depopulation and colonisation that makes the Prussian situation different to the rest of the eastern Baltic? It is interesting to

note that sacred sites are equally limited in the depopulated frontier zones such as south-west Lithuania. The incoming colonists encountered the remnants of broken and fading religious systems, which nonetheless continued to be represented by specific places within the landscape: places that were named as sites associated with pre-Christian cult activity.

Conclusion: the impact of Christianity after the Prussian Crusade

The Christianisation of Prussia was a process that began before the crusades, and was particularly associated with Cistercians in the early-thirteenth century. Military conquest during the crusading era was accompanied by a process of religious conversion, driven by Dominicans and the Teutonic Order. This is most explicit in the conditions outlined by the Treaty of Christburg, referred to a number of times throughout this book. The involvement of the Teutonic Knights in the process of conversion has remained a matter of debate, and yet the development of the Order's state resulted in the establishment of a Christian infrastructure in towns and subsequently in the countryside, serving the spiritual needs of the colonists and representing focal points for the conversion process. The hierarchy of the Prussian Church was drawn from the ranks of the Order, and the Knights carefully regulated the *Ecclesia* within their state. The independence of the bishops of Ermland needs to be situated within this context, and does not compare to the ongoing antagonism between the Order and the archbishops of Riga in Livonia.

What can be concluded about the impact of Christianity following the Prussian Crusade? Peter of Dusburg's *Chronicle* in the typical manner of conversion narratives is packed with episodes of successful evangelisation. The reality appears to have been very different. All the accounts of religious conversion in northern Europe include sweeping statements of changes in religious allegiance, often linked to the actions of the political elite. Archaeological research combined with other sources has indicated how this process was far more complex and, indeed, later accounts suggest that pre-Christian cultic activity continued to be practised, in private if not in public. By the start of the fifteenth century, there were at least 719 parishes in Prussia (940 including Pomerania), of which 76 were located in towns. But early modern documentation suggests that the highest number of surviving pre-Christian beliefs in Prussia were registered in Sambia (Vélius, 1989, p. 245). In southern Estonia conquered by the Sword Brothers and held by the Livonian branch of the Teutonic Order into the sixteenth century, traces of pre-Christian practices are evident in rural cemeteries (and by extension communities) into the seventeenth century (Valk, 2004a), and folk history in Latvia and Lithuania recognises some form of mutable continuity of pre-Christian customs into the modern period (e.g. Kļaviņš, 2006, 2011).

The peoples of the eastern and northern Baltic region have often been called the last pagans of Europe. In Prussia, pre-Christian practices invariably

vanished with the disappearance of indigenous languages and identity in the seventeenth century but, in previous centuries, they were slowly being absorbed by Christian communities, manifesting in folklore and what would become perceived as 'traditional customs' by subsequent generations. Folklore recorded amongst rural communities many centuries later has regularly been used as a window into both the persistence and absorption of earlier Prussian beliefs, such as the popular and evidently Christian association of the snake with the Devil (Vêlius, 1989, p. 117). Indeed, by the fifteenth century there is evidence for belief in evil spirits and demons, and the practice of magic within the Order's state; pre-Christian sites were seen to attract witches into the seventeenth century (Bogdan, 2006, pp. 1, 21). However, particularly in north-eastern Prussia, a great deal of popular practices must have survived. A number of decrees against sorcery were issued by the Order into the fifteenth century (e.g. Paulus of Rusdorf on 26 January 1427) and, as late as the seventeenth century, Praetorius mentions more than 20 categories of 'priests' engaged in sorcery in Prussia (Vêlius, 1989, pp. 244–245). Complaints against the Order's failure to Christianise were relatively frequent, also suggesting the Prussian Church expected support from the Teutonic Knights in advancing the process of religious conversion. In 1427, the Bishop of Kulm complained that Prussian peasants have barely any knowledge of Christianity as the Order had forced them to work on holy days (Stephan, 2009, p. 329).

From the perspective of material culture, colonist Prussia appears European and Christian by the fourteenth century. The religious artefacts of the Teutonic Order and the level of investment put into churches and chapels emphasises the devotional aspect of the institution. The towns of Prussia are comparable in many respects to their European counterparts. Religious festivals punctuated the year of urban dwellers, involving spectacular processions in the late-fourteenth and fifteenth centuries. They were also the seats of bishops and contained episcopal residences, in some cases attached to cathedrals. These *castra* were built in the militaristic style of the Teutonic Order's convents and expressed the nature of local authority: the physical manifestation of *Ecclesia Militans*. This typically did not extend to the *Backsteingotik* of Prussian parish churches, for unlike the fortified churches in southern Transylvania or the Anglo-Scottish marches, there is no evidence that the majority of churches in the Order's state were designed with security concerns in mind. The fringes of eastern Prussia remained an active military frontier for much of the fourteenth century, and there are few examples of church construction here before the fifteenth century. Nonetheless, the sacred landscape of Prussia did change following the Crusade. The numerous churches dedicated to saints, not to mention the Order's castles invoking the names of Christ, Mary, as well as angels, vividly mapped a Christian landscape onto the conquered territories (Rozynekowski, 2006, pp. 229–240). Much remains to be done, particularly on the development of individual parishes within the broader context of landscape and settlement, the construction and use of churches and the integration of

Prussian and German communities in eastern Prussia, particularly in Sambia. Marian Biskup (2002b) writing on the development of the medieval Prussian parochial system concluded that a comprehensive volume on parishes, their functions, officials and distribution would go some way to understanding the reach of the Order and the Prussian clergy in spreading Christianity. This places particular value on the detailed study of individual churches and parishes and remains an important objective for future, inter-disciplinary research.

Notes

- 1 The term 'pagan' is used here and elsewhere in this book as an abbreviation for the non-Christian religious systems of the indigenous Balts, whilst acknowledging it is a polarising and derogatory Christian term. It remains widely used by scholars within conversion period studies.

7

FROM FOREST TO FIELD¹

The changing environment of medieval Prussia

They (the Teutonic Knights) had left well-established, fruitful, calm and peaceful lands and come to a land of horrors and wildernesses, which no-one tended.

(Nicolaus of Jeroschin, *The Chronicle of Prussia*, II: 10; Fischer, 2010, p. 63)

The chaplain to the Grand Master of the Teutonic Order may have been paraphrasing Deuteronomy (32, 10) when describing the Prussian lands encountered by crusaders in the 1230s, but his *Chronicle* is punctuated with attacks launched against knights and colonists from the depths of forests and wildernesses. These environments suited the guerrilla-style warfare of the Prussian tribes, and the woods bordering eastern Prussia and Lithuania remained an ever-present backdrop for the wars with the Teutonic Order in the fourteenth century. The cultic foci of the Prussian tribes included trees, groves, lakes and rivers; from the perspective of the incoming missionaries and crusaders the very land itself was spiritually contaminated. Today, in a pocket of modern north-eastern Poland, a belt of woodland spills over the border from Lithuania and Belarus which is considered to include the last virgin ‘wildwood’ in Europe, untouched after the ice sheets receded; a haven for deer, elk, European bison and their predators – wolves, bears and lynx. Protected within the bounds of the Wigry, Biebrza, Nadry and Białowiecki national parks these woods have their own mythology, but remain an evocative reminder of the type of landscape encountered by crusading armies on the Baltic frontier. The distribution of wetlands, woodland and the morainic hills of the Masurian lakelands had a clear effect on the settlement pattern in prehistoric and medieval Prussia (Figure 7.1; Okulicz-Kozaryn, 1997, pp. 287–288; Powierski, 2003; see also previous chapters). Even today, north-east Poland and the Kaliningrad Oblast are relatively thinly settled, with populations concentrated in a handful of towns which, with the exception of Białystok and Suwałki, grew up in the wake of the crusades. Biodiversity remains comparatively high, in part due to the low intensity of farming (Goławski, 2006). Even though western Prussia had seen relatively more intensive waves of settlement and today this part of Poland is a largely agricultural landscape providing wheat, sugar beets and grazing land,



(a)



(b)



(c)



(d)



(e)

FIGURE 7.1 Landscapes of medieval Prussia: (a) many of the Teutonic Order's castles were located next to lakes; (b) the floodplain between the Vistula and Nogat, near the medieval village of Piekło (Pieckel); (c) the Masurian lakelands are the result of glacial activity; (d) the Curonian Spit near Klaipėda (Memel) sheltering the most extensive lagoon in the Baltic; (e) traces of wild boar foraging in the western part of the Sztum Forest

there were still significant stretches of woodland. The extensive Sztum Forest, situated in the centre of Marienburg's commandery, reached the banks of the old Nogat tributary and remains wooded today.

Throughout the thirteenth century, the active theatre of war and the Order's growing state absorbing the mosaic of tribal territories was framed by two great rivers, representing the most important communication routes in the south-eastern Baltic region. In the west, the Vistula flowed from the Carpathians, through the seat of the Polish kings in Cracow, and snaked across Masovia before draining into the Baltic, cutting through and separating western Prussian lands from Pomerania (i.e. East Pomerania). Whilst Pomeranian colonisation penetrated eastwards into the Prussian territory of Pomesania in the Early Medieval Period and the Order's territories expanded westwards in the fourteenth century, the Vistula remained the most important artery for trade and communications. In the east, the Nemunas flows from Belarus and drains into the Curonian Lagoon, marking the separation between former eastern Prussian (mostly the tribal territory of Sudovia) and western Lithuanian territories. Like the Daugava in southern Livonia, both of these represented the main communication routes in the region; in both Prussia and Livonia, the crusades initially followed the courses of these rivers. The coastal region of West Prussia formed an isthmus sheltered by the Vistula Spit running from Gdańsk (Danzig) to Primorsk (Fischhausen), whilst a similar formation, the Curonian Spit, runs from Zelenogradsk (Cranzkuhren) in North Sambia through to Klaipėda (Memel). Between the Vistula and the Nemunas the topography varies; the highest points in the Garb Szeski and around the Suwałski lakeland reach 309m above sea level, whilst Góra Dylewska on the left bank of the upper Drwęca in the south reaches 312m (Długokęcki, 2009a, p. 25). This landscape changed following the crusades. In some places the transformation was rapid and its impact dramatic, elsewhere it was more gradual. By the time the Order's state disintegrated, its ecological legacy represented a complete break from the past. However, this legacy remains one of the least well-known impacts of the Northern Crusades.

This chapter sets the previously considered development of the Teutonic Order's state within a broader environmental context, outlining palaeobotanical, zooarchaeological and written data for the impact of the crusades on the flora and fauna of Prussia. The neighbouring regions of Masovia, Greater Poland and Pomerania are far better known from this perspective, especially within the context of the expansion of the Polish state in the tenth century, and the great set pieces of paleoenvironmental archaeology include Wolin, Kołobrzeg (Kolberg), Poznań, Ostrów Lednicki, Gniezno, Kałdus and Gdańsk; the latter two came under the control of the Teutonic Order in 1228 and 1309 respectively.

Whilst important research has been done by historians on the economic aspects of the Order's state (e.g. Gancewski, 2001; Józwiak & Trupinda, 2007), palaeobotanical and zooarchaeological data remain largely neglected as a source of information and are rarely included in any synthetic works. What they offer

is a long-term perspective on environmental transformation in the region, prompting a series of questions. How were local environments changed over the course of the thirteenth to fifteenth century; can we detect the ecological impact of castle building and colonisation and, more generally, the impact of urbanisation, agricultural intensification and trade? How were local flora and fauna appropriated, and to what extent does this reflect the ideology of the Teutonic Order and incoming colonists? How can different types of environmental data contribute to a holistic understanding of Prussia's changing ecology, and to what extent does the crusading period represent a break from the past in ecological terms? These questions are not wholly answered within this chapter, but represent potential avenues for future research.

Studying the crusades from an environmental perspective

Archaeologists have an increasingly diverse range of scientific techniques at their disposal for the analysis of biological and sedimentary data from on- and off-site contexts (Figure 7.2). Many of these techniques were developed and employed in closely related disciplines, such as palaeobotany, geography, geology, soil science and chemistry, but were rapidly applied within archaeology. With the addition of written, artistic and cartographic sources, the study of the medieval environment is necessarily multi-disciplinary (Makowiecki, 2008a, p. 74). The most commonly applied techniques, and those of most relevance to studying the crusades, are outlined below. Each technique has its limitations, and requires an in-depth understanding of pre- and post-depositional taphonomic factors for effective interpretation, i.e. the processes affecting the deposition and recovery of archaeological material. It is beyond the scope of this chapter to discuss the various taphonomic issues, but detailed information on each can be found in several comprehensive archaeological science textbooks (e.g. Bell & Walker, 2005; Branch *et al.*, 2005; O'Connor & Evans, 2005).

Pollen analysis is arguably the most widely applied technique used to reconstruct past vegetation environments and the impact of natural and human agencies on the flora. Pollen is produced, to a greater or lesser degree, by all spermatophyte plants and transported over varying distances, primarily by wind, insects and through self-pollination. Pollen grains are partly composed of sporopollenin, a substance which is highly resistant to corrosion and, which under the correct preservation conditions, can survive for millions of years. Pollen is best preserved in acidic, waterlogged (oxygen-free) sediments, such as peat bogs and lakes (off-site contexts), or in waterlogged archaeological deposits (on-site contexts), such as ditches, pits, middens and wells. On-site contexts represent small depositional basins and typically have small pollen catchments reflecting localised environmental conditions. Peat bogs and lakes vary in size, but the larger the depositional basin, the larger the pollen catchment, reflecting local to regional vegetation environments. Lakes and bogs often yield sediment



(a)



(b)

FIGURE 7.2 Sampling for environmental data: (a) a coring transect across the outer moat at Malbork castle; (b) taking a micromorphological block from a pit section in Biała Góra

sequences that have accumulated over several thousand years, but are crucial in setting archaeological sites within a broader ecological, chronological and landscape context.

There are a significant number of pollen sequences from Poland, but many of these profiles, constructed prior to the 1980s, are of low resolution, poorly dated or not dated at all and, consequently, of limited value (Brown & Pluskowski, 2012). However, since then, there has been a considerable increase in the number of pollen studies, many accompanied by radiocarbon dates. The recent reconstruction of plant migration patterns for the late-glacial and Holocene of Poland (Ralska-Jasiewiczowa *et al.*, 2004) includes 190 pollen sequences; 179 are radiocarbon-dated. Several more pollen studies can be added to this list, published since 2004. Of these 200+ sequences, only 14 radiocarbon-dated sequences are available from Prussia covering the period of the crusades; a further six sequences are located within the Duchy of Pomerania, mostly along the southern Baltic coast, three to the east with contested lands along the borders of Prussia and the Grand Duchy of Lithuania, and a single sequence with the Polish Kingdom close to the New March (Figure 7.3). The disparity in palaeoecological studies covering prehistoric and historic periods can partly be explained through wastage or removal of more recent deposits (e.g. through agricultural drainage and peat cutting), but also a greater academic interest in the vegetation history of the late-glacial and early to middle Holocene periods. In addition, few, if any, pollen sequences are located close to castles, limiting current understanding of the direct impact of these sites on the landscapes and reflecting a general lack of application of palaeoecological data to historical archaeological research within Poland.



FIGURE 7.3 Published pollen sequences from the Order's state with data from the medieval period (composite by A. Brown aft. Ralska-Jasiewiczowa *et al.*, 2004)

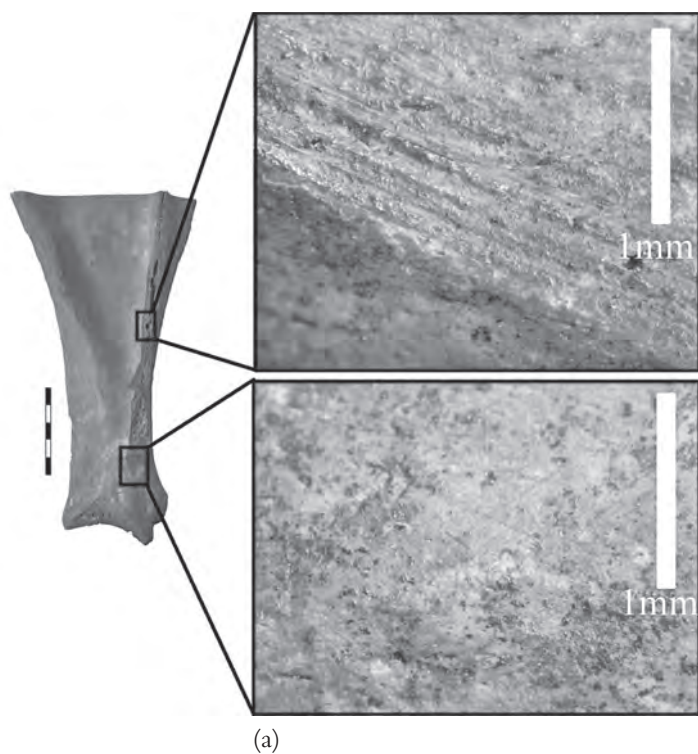
In addition to pollen, plant macrofossils can be preserved in waterlogged contexts, or as charred remains in occupation deposits. Plant macrofossils refer to plant remains visible with the naked eye, including seeds, fruits, nuts, leaves, twigs and bud-scales. Unlike pollen, macrobotanical remains travel only a short distance from their source, so are excellent indicators of local vegetation conditions or the storage of agricultural produce. They are useful in indicating the presence of species that produce little or no pollen, or pollen liable to decay. Archaeobotanical studies of medieval urban contexts are limited to a handful of sites (e.g. Latałowa *et al.*, 2003, 2007). In urban contexts, plant remains provide valuable indications about local flora, the exploitation of ‘useful plants’ and contribute to the wider debate on medieval diet and economy (Badura, 2011). The taphonomy of urban macrobotanical deposits is more complex however; plant assemblages may be of mixed origin, reflecting a range of human activities and local floras (Robinson, 1996).

Although wood can be classed as a ‘plant macrofossil’, its application through dendrochronology to palaeoclimatology, archaeology and dating, deserves specific mention. Dendrochronology involves the analysis of the pattern of annual growth rings on trees. Any given pattern of tree-rings can be cross-matched with the master chronology for that species, composed of multiple overlapping tree-ring sequences extending back thousands of years. Where the sapwood survives, the exact felling date of a timber can be established. This has been used to precisely date construction elements in buildings, although problems arise where wood may have been re-used from an older structure, or replaced during subsequent restoration. When the sapwood is missing, only a *terminus post quem* can be calculated. The growth rings on trees are more obvious in temperate regions where there is a marked difference in seasonal climate. Variations in the thickness of the growth ring occur as a result of variations in temperature and rainfall and are, therefore, important indicators of past climate. Trees in different regions will also tend to develop similar patterns of growth rings, which can be used to dendrochronologically source timbers, particularly significant here in view of the substantial trade in Baltic timber in the Middle Ages (e.g. Haneca *et al.*, 2005).

Significant quantities of animal bone are recovered from medieval sites in the Baltic, but zooarchaeological studies (referred to as archaeozoological in Polish scholarship) of material from Late Iron Age Prussia and the Order’s state are, to date, comparatively limited. Exceptions include work done by Marian Sobociński and Daniel Makowiecki (e.g. Makowiecki, 2010, which includes further references), especially on the Kulmerland and on fishing; decades of urban excavations in Gdańsk and Elbląg (Elbing); and most recently the castles at Malbork (Marienburg) and Kalipėda. The analysis of hand-collected and sieved vertebrate bones aims to reconstruct relative species’ abundance and morphological preferences (zooarchaeologists hesitate to use the term ‘breeds’ as in the modern usage this encompasses features such as coat colour, texture and temperament); mortality profiles for key species; skeletal abnormalities, such as

pathologies and modifications, particularly butchery and bone working. From this, it is possible to reconstruct changing dietary profiles for each site; species preferences; levels of hunting, fishing and husbandry; scales of manufacturing processes utilising animal products; bone, leather, fur and feathers; distinctive patterns of butchery; and the introduction of new techniques, tools and species (Figure 7.4). Isotopic studies of bone, particularly tooth enamel, have yet to be applied to medieval Prussian faunal material, but offer windows into the movement of animals within the context of provisioning, as well as insights into dietary regimes. Most recently, isotopic work on fish remains from two sites relating to the Teutonic Order has shed new light on their context (see below). The presence of specific species can serve as an ecological proxy for the local environment. The remains of invertebrates (and other micro-fauna with limited mobility) are particularly well suited to this, and include beetles, which can be analysed to reconstruct ground surface conditions and vegetation, and molluscs, which are reliable indicators of local environmental niches, reconstructed from their changing abundance. The remains of micro-fauna are rarely the end result of human depositional activities, unlike larger species. Wild mammal species recovered from stronghold and castle sites are also typically linked to exploitation of the local landscape (Makowiecki, 2008c), whilst documented stores of game (e.g. auroch and bison meat) are equally likely to reflect long-distance sourcing.

Palaeoecological studies increasingly involve multi-proxy analyses, utilising a range of analytical techniques in addition to pollen and plant macrofossils, including chironomids and testate amoeba. Chironomids are a form of non-biting midge, whose species abundance is related to factors such as the pH, salinity and trophic (nutrient) status of peatlands and lakes. Testate amoeba are unicellular protozoa, often abundant in peat bogs and mires, and particularly useful in studying changes in the hydrology and chemical composition of water. Both proxies are therefore valuable in investigating climatic change, but factors such as pH, trophic status and hydrology are also sensitive to landscape transformations resulting from human activity occurring independent of climatic change. Recent multi-proxy studies have focused on investigating the role of climatic and anthropogenic forces in the vegetation history of lowland peat mires in Poland during the last two millennia (e.g. Lamentowicz *et al.*, 2009). The climatic optimum in Prussia can be broadly dated from the ninth to twelfth century AD, with warmer winters and a longer growing season. This is of particular relevance, since the crusades and the growth of the Order's state occur within a period of climatic deteriorations between c.1300 and 1850, known collectively as the Little Ice Age (LIA) that may have provided opportunities or limitations to human communities, both indigenous and colonising. What is interesting is that whilst other regions of Europe were experiencing settlement contraction, Prussia was thriving, although lean years were documented (the winter of 1323 was so harsh that it affected the subsequent fruit harvest in Prussia and Livonia; Żulkus & Daugnora, 2010, p. 75)



(b)

FIGURE 7.4 Butchery technology in the colonies: (a) a cattle scapula blank from a late medieval archaeological context in Toruń with marks of butchering (lower inset) and working preparation (upper inset); (b) a butchered beaver femur recovered from excavations at Biała Góra (K. Seetah)

and conditions on the frontier in particular must have been especially difficult. The chroniclers of the Prussian Crusade noted both harsh and mild winters which frustrated the Order's incursions into Lithuania. Furthermore, provisioning systems were operating so effectively that the Order was able to supply its neighbours with grain and timber. At this time, one of the most noticeable changes in the environment of Prussia was an intensification of agriculture and deforestation. This was a process that had already been ongoing in neighbouring Slavic regions and seems to be an ecological feature of state formation in the south-eastern Baltic.

Woodland

Woodland was a predominant feature of the Polish landscape, varying geographically in composition throughout the course of the Holocene as a result of factors such as climate, soils, topography, competition and natural succession but, more recently, anthropogenic factors. Approximately one-quarter of present-day Poland remains covered by woodland, though most are semi-natural or planted. The present warm 'interglacial' period (Holocene) began *c.*11,500 years ago (9,500 cal BC) following the rapid climatic warming and retreat of the ice sheets during the late-glacial. Climatic change over the last-glacial/interglacial transition was accompanied by changes in soil and vegetation cover. The species-poor open steppe and tundra of the late-glacial, growing on thin mineral soils underlain by permafrost, was rapidly succeeded by scrub and open woodland growing on fertile, base-rich soils.

Early deforestation

The post-glacial woodlands, dominated by pine and birch, were gradually replaced from *c.*8000 cal BC by mesophilous deciduous woodland dominated by hazel, oak, elm and lime (Ralska-Jasiewiczowa, 2004a). There is considerable stabilisation in climate and woodland composition between *c.*6500 and 3800 cal BC, although there is some evidence for vegetation disturbance in the form of small-scale woodland clearance (Tobolski, 2004). Significant vegetation change is apparent from 3800–500 cal BC. There are declines in elm (3800 cal BC), lime (3100–2500 cal BC) and hazel (2500–1800 cal BC), with oak and hornbeam becoming the dominant deciduous woodland components from 1800 cal BC. Evidence for anthropogenic activity in the pollen record increases between 3100 and 2500 cal BC, in the form of small-scale woodland clearance, burning, occasional findspots of rye pollen and an increase in pollen-types indicative of pastureland (Ralska-Jasiewiczowa 2004b). There is more extensive evidence for woodland clearance and agricultural activity during the Bronze Age, from *c.*1600–750 cal BC, including the regular presence of rye pollen (e.g. Kupryjanowicz, 2007), followed by a regeneration of hornbeam and an increase in pine. Removal of woodland intensifies from *c.*500 cal BC,

contemporary with Iron Age cultures, particularly to the west of the Vistula in the Greater Poland lowlands. Hornbeam remained an important woodland component, with beech and spruce expanding in north-east Poland during the second half of the first millennium BC, with a rise in oak pollen from the beginning of the first millennium AD.

There is substantial regeneration of woodland from c.AD 500, corresponding with the Migration Period, with continued woodland development and low levels of anthropogenic indicators throughout the Early Medieval Period (c.cal AD 500–1250) (e.g. Lamentowicz *et al.*, 2008, 2009). Pine remained the dominant woodland component in the east (Mitchell and Cole, 1998; Ralska-Jasiewiczowa, 2004b; Makohonienko, 2004; Kupryjanowicz, 2007), with hornbeam increasing in importance in the north and to the west of the Vistula (Makohonienko, 2004). Notable exceptions to this pattern of woodland regeneration are apparent from palaeobotanical studies in and around the early-medieval settlement at the island of Wolin, north-west Poland. Palynological investigations from several locations reveal substantial deforestation associated with the construction of a large urban port that flourished between the ninth and eleventh centuries (Latałowa, 1992, 1999). Huge split oak timbers were used to construct the quay and residential buildings. Many oaks were imported from beyond the immediate hinterland following the large-scale removal of local woodland resources (Broich, 2001). Gdańsk likewise flourished as a port from the ninth century, bounded by extensive marshes around the Vistula Delta. Unlike Wolin, woodland is argued to have formed a formidable wilderness around Gdańsk, with perhaps only 20–25 per cent of the land area in the immediate vicinity cleared of woodland (Zbierski, 1985).

Timber and wood by-products formed the primary resource for these expanding urban ports. Timber, particularly oak, would have been used in the construction of houses, quaysides, bridges, fortifications and planking used in street paving. Substantial quantities of timber would have been required for ship-building and the production of containers, wagons, agricultural implements and domestic utensils. Wood by-products were equally important, including bark used in tanning and dying, rope, tar for conserving ship hulls and rigging, resin used in candles and charcoal required for industrial processes such as smelting. Ninth-century occupation deposits within the Długi Targ (Long Market) area of Gdańsk also include abundant hazelnuts, highlighting the contribution of woodland resources within the early-medieval diet (*ibid.*).

The palaeoenvironmental picture suggests some variability in the extent and composition of woodland during the Early Medieval Period, but is characterised by increasing palynological evidence for human impact from c. AD 1000. This is apparent from several pollen sequences in northern Poland, particularly along the Baltic coast (Latałowa, 1982, 1992; De Vleeschouwer *et al.*, 2009), but also within the Vistula basin, including the landscape south of the future site of Malbork castle (Brown and Pluskowski, 2012), and from several pollen sequences within the Kulmerland (Noryśkiewicz, 2004a, b, 2005; Wynne,

2011). Local studies also indicate the intensified exploitation of the landscape associated with early-medieval Masovian strongholds into the twelfth and thirteenth centuries (Dulinicz & Iwaszczuk, 2008). In all of these cases, environmental changes coincide with social reorganisation and colonisation associated with the establishment of the Polish Kingdom.

Medieval clearance

The construction of strongholds in Prussia from the ninth to twelfth century, incorporating timbers into their structures and prompting clearances for cultivation, appears to only have had a localised impact on the wooded landscape. The micro-regions associated with individual strongholds were separated from each other by wetlands and forests. For example, on the basis of charcoal recovered from the excavations at the Galindian stronghold of Jeziorko, it was clear the early-medieval hinterland was significantly forested and included oak, hornbeam, alder, maple, ash, birch and poplar, utilised by the settlement complex for fuel and building material (Antoniewicz, 1950b). Interestingly, pine was only present in small quantities (Zabłocki, 1950), suggesting relatively limited deforestation. Palaeoenvironmental evidence for more widespread landscape transformation increases significantly from the thirteenth century: an event horizon in the vegetation history of Poland (e.g. Lamentowicz *et al.*, 2007, 2009). Deforestation is most apparent in northern and western Poland along the Vistula basin, Greater Poland and Pomerania (Makohonienko, 2004). Pine is the only tree species to benefit from anthropogenic impact, dominating the remaining woods from the Late Medieval Period onwards. In northern Poland, vegetation change occurs against a background of demographic growth, urban development, intensive rye cultivation and warfare, the latter culminating in the formation of the Teutonic Order's state following the end of the crusades in Prussia in 1283. However, few, if any, pollen sequences are located close to the Order's castles or settlements, limiting comment on the specific impact of colonies on the immediate landscape. The Ecology of Crusading research programme, funded by the European Research Council, is seeking to rectify this imbalance.²

The impact on woodland must have been considerable as a result of the use of timber in castle and settlement construction. These were largely built from wood throughout the thirteenth century, and some continued to be constructed in this way into the fifteenth century (see also chapter 4). To fortify an area of 25m², a palisade of 8m poles (three above ground and five below) needed 250 timbers which translate to six hectares of woodland (Kochański, 2001, p. 471). In some cases, timber posts were sunk into waterlogged ground to provide stable foundations for buildings. Excavations at Malbork have revealed that timber foundations were used extensively to support the western range of the Middle Castle, suggesting that considerable areas of woodland must have been felled in the first half of the fourteenth century. Pollen analysis

of organic deposits within a small basin 3km south of Malbork and palaeobotanical evaluation from the castle itself has produced unequivocal evidence for landscape clearance dating to the crusading period (see below). At Klaipėda, a series of wooden streets were uncovered during excavations in the castle's outwork, the earliest dated by dendrochronology to 1374 (Žulkus & Daugnora, 2010, p. 78). The first houses built within the Order's towns were constructed from timber, after which they were replaced or augmented with brick and stone (see also chapter 5). But questions remain whether constructional timber was obtained from the surrounding landscape, from elsewhere within the commandery or imported from further afield.

Despite the prevailing trend in deforestation evident in the palaeobotanical record, written sources clearly indicate the Order recognised the importance of preserving and managing woodland as a valuable resource. The commandery of Marienburg, for example, contained at least two significant stretches of woodland into the fifteenth century. The Stuhm Forest lay just over 10km south of the great castle and, according to archaeological surveys and later written sources, colonising settlement accompanying the development of this commandery respected the integrity of this woodland, in the same way as the pattern of Late Iron Age settlement it replaced (Długokęcki, 1992, pp. 97–99; Długokęcki & Haftka, 2000, p. 81). Although there is evidence for clearance and cultivation at its fringes, this was clearly recognised as a vital resource. Faunal remains recovered from Biała Góra on the western edge of this stretch of woods (see also chapter 3 and below) indicate the exploitation of a range of woodland and wetland species, particularly in the thirteenth century. The southernmost stretch, extending down to Marienwerder (Kwidzyn) was referred to as *Silva Drusensi* (*drusas* meaning strong, mighty), referring perhaps to its size (Długokęcki & Haftka, 2000, p. 78). Future research will shed more light on the nuances of the relationship between managed woodland and clearance across the Order's state; there is clearly evidence for both.

Woodland was a significant resource in the Late Medieval Period beyond the immediate building material and fuel requirements of the Order's castles and towns. From the thirteenth century onwards, large volumes of timber were exported from the Baltic to north-western Europe (e.g. Haneca *et al.*, 2005; Ważny, 2002, 2005). Rising populations created an increasing demand for constructional timber, which the local woodlands of north-west Europe, by then much denuded, could not supply. However, the extensive woodlands of eastern Europe contained significant quantities of high-quality timber. Timber was transported along the major rivers, particularly the Vistula, and exported from three harbours designated for timber export, principally Danzig, but also Elbing and Königsberg (Kaliningrad) (Ważny, 2005). Written documents detailing the timber trade are generally rare prior to the mid-sixteenth century; however, records show that the Teutonic Order brought almost one-and-a-half million pieces of timber between 1389 and 1415, mostly from Masovia. Customs records from Zantir indicate that most of this timber was in the form

of wainscots (high-quality oak boards), rather than logs or beams (*ibid.*). The south-eastern Baltic timber trade continued after the disintegration of the Order's state. From 1562, *The Book of Sounds* recorded the tolls on cargo vessels passing through the Sound of Denmark, including significant quantities of grain and timber exported through Danzig bound for western Europe (Haneca *et al.*, 2005).

Baltic timber was prized for ship-building, but also oak panelling used in paintings and sculptures. The source of the wood used in art-historical objects across western Europe has recently been investigated through dendro-provenancing. Tree-ring patterns of oak panels can be compared with those from detailed oak dendrochronologies constructed from archaeological sites across Poland covering the period from AD 952–1670. The majority of tree-ring sequences show a distinct correlation with regional chronologies for northern Poland around Gdańsk (eastern Pomerania and Warmia) and to the south within the Masovian lowlands. Trees felled after AD 1450 show a stronger correlation with the regional chronologies of the Podlasie lowlands of eastern Poland (*ibid.*). This suggests that by the late-fourteenth and early-fifteenth centuries, as demand grew, the primary source of timber moved from northern Poland to the dense woodlands of eastern Poland, including Białowieża Forest. Woodland along the Lithuanian border was not exploited for commercial purposes until AD 1450, most of the timber being transported along a canal built by the Teutonic Order linking Kaunas to Danzig (Ważny, 2005). By comparison, wood from north-west Poland is rarely found in art-historical objects. Pollen and documentary evidence suggest woodland clearance occurred earlier west of the Vistula, from c. AD 1000, perhaps resulting in a lack of suitable timber in north-west Poland by the thirteenth century. By this time, Pomerania seems to have been an important producer of grain.

Green deserts

Written sources suggest parts of north-eastern Poland retained significant expanses of woodland into the sixteenth century. The native Prussian tribes are described as inhabiting a largely wooded and swampy wilderness which presented problems for sustained military campaigns and large-scale battles. In the Early Medieval Period, Prussia was dominated by three large tracts of woodland which can be sketched from pollen data. Along the Vistula Lagoon and in the western part of Masuria, beech woods flourished in the damp and relatively mild maritime climate. In the north-east, spruce woods dominated, whilst in southern Masuria there were mixed woods consisting of oak and dry-ground forests with pine. The presence of trees accustomed to a warm climate, such as lime and yew and in the lakes and rivers, water caltrop, indicates the average summer temperatures could not have fallen below 17–19°C; plant colonisation of abandoned or underused areas of settlement and pasture was therefore relatively rapid (Okulicz-Kozaryn, 1983, p. 30). The written sources of the Order indicate that the crusaders became very familiar with the wooded landscape,

particularly from the point of view of accessibility. The easiest woodland for an army to transverse was made up of tall conifers, such as pine, spruce, larch and yew; such woodland had no undergrowth and enough spacing between individual trees, and was typically located on morainic uplands, by rivers and other bodies of water. Similarly, accessible were complexes of oak–beech woods with ash, maple, lime, yew, aspen and birch, interspersed with clearings and meadows which provided pasture. These types of woodland, both conducive for settlement, were found in the central parts of Prussia. On the periphery, the Order's sources noted more difficult terrain; woods growing in marshes and bogs, dominated by species such as alder and willow with thick undergrowth. Equally uninhabitable were the belts of mixed woodlands with thick undergrowth, located in the southern borderlands of Prussia and around the lower Nemunas (Okulicz-Kozaryn, 1983, pp. 30–31; Żulkus, 2006, p. 23).

Whilst the regional distribution of woodland provides insight into the distribution of pre-Crusade Prussian settlement, the Teutonic Knights are also credited with depopulating large areas of Sudovia (north-eastern Poland/south-western Lithuania), resulting in the creating of an extensive wooded wilderness in the areas separating Prussia, Masovia and northern Volhynia from Lithuania. The eastern borders of the Order's state represented an active military frontier with Lithuania throughout much of the fourteenth century, which contemporary sources described as a wilderness, a 'green desert'. The history of the Prussian Crusade is punctuated with regions laid to waste and reduced to 'deserts'. This is how the Kulmerland is described by Nicolaus of Jeroschin (after Peter of Dusburg) following Prussian raids in the early-thirteenth century and, subsequently, the border between the Kulmerland and Pomesania (*The Chronicle of Prussia*, II: 1; III: 12; Fischer, 2010, pp. 44, 76). Indeed, throughout the Middle Ages there is a close correlation between warfare and settlement desertion in Prussia and, to lesser extent, short-lived outbreaks of plague from 1373–1410 (Jäger, 1981, p. 230). Woodland could recover quite quickly during periods of warfare and depopulation; even as late as 1582, the colonisation of arable fields by oak, beech, birch and spruce was noted in eastern Prussia (Mager, 1960).

Today, this former frontier includes the Wigry National Park in Poland, part of the Augustów Forest complex. Pollen studies from cores taken in Lake Wigry indicate this area regenerated woodland from the second half of the first millennium AD, although at odds with archaeological evidence for intensive settlement (see also chapter 2). From the late-thirteenth century, there is gradual deforestation and low-level (but continuous) cultivation of rye and buckwheat, which only significantly intensifies from the mid-seventeenth century (Kupryjanowicz, 2007). Further south in Masovia, Białowieża Forest, straddling the modern border between Poland and Belarus, is the most extensive stand of old growth forest left in Europe. Although not primary woodland, the palaeoecological evidence suggests it has received significantly less disturbance than other areas. Early pollen studies by Dąbrowski (1959) and Charzewski (1966), without accompanying radiocarbon dates, produced no evidence for

vegetation disturbance resulting from human activity. More recently, Mitchell and Cole (1998) analysed pollen from two small forest hollow profiles covering the last 1,200–1,500 years. Arboreal pollen consistently accounted for c.90 per cent of the pollen sum in deposits dating from the sixth to mid-eighteenth century. Limited forest disturbance was apparent, however, dating to the early-fifteenth century, and coinciding with an increase in charcoal. This most probably relates to the establishment of charcoal, tar and potash industries in the forest at this time. By the early-twentieth century, Prussian woodland had been reduced to a fraction of its early-medieval coverage and was dominated by conifers, including pine (Zabłocki, 1950, p. 223). Looking back at the Middle Ages, current palaeobotanical studies point to differences between the heartland and frontiers of the Order's state, and the easternmost woods were contested with Lithuania. Whilst the woods of Prussia were perhaps most important as a source of timber, they also provided habitats for a diverse range of species, some of which were actively exploited by the Order.

Hunting and trapping

The western Slavs hunted around 30 species of mammals, 70 species of bird and fished around 50 species of fish (Makowiecki, 2009, p. 430), but the suite of animals exploited by Late Iron Age Prussian communities is difficult to reconstruct due to the relatively less well-documented faunal assemblages from north-east Poland and the Kaliningrad Oblast. What is clear is that domestic mammals dominate these assemblages, whilst small quantities of a diverse range of wild species are present. For example at Jeziorko, fragments of roe deer, red deer, wild boar, otter and beaver bones were identified, reflecting the exploitation of nearby woods and wetlands. By the thirteenth century, the woodlands of the south-eastern Baltic appear to be dominated by red deer, roe deer and wild boar, with localised and decreasing herds of bison, elk and aurochs. These animals were hunted primarily for their meat, although bone and antler working was widespread; sporadic finds of drinking vessels indicate the use of auroch, bison and cattle horns (Okulicz-Kozaryn, 1997, p. 197). Some mammals were exploited specifically for fur. Adam of Bremen (IV, 18) had praised the availability of good furs in Prussia which the locals readily exchanged for woollen garments, whilst Helmold of Bosau, writing almost a century later, exclaimed that the indigenous tribes had no understanding of the value of fur (Okulicz-Kozaryn, 1997, p. 289). There is, however, some evidence for Prussian involvement in international fur trading. *Knytlinga Saga* states that around 1120, a Sambian merchant offered the Danish king 8,000 white furs in exchange for allowing him to winter at Hedeby, whilst the Sudovians traded the furs of beaver, kin and squirrels to the Rus' in return for grain when crops failed (Okulicz-Kozaryn, 1983, p. 149).

Archaeologically, our understanding of Prussian hunting in the twelfth and thirteenth centuries is arguably much less developed than for earlier centuries,

especially the Migration Period. Whilst Stone Age colonists of the south-eastern Baltic were hunter-gatherers, excavations of Early Iron Age settlements in the Suwałki lakeland and Great Masurian Lakes district revealed very few fragments of wild species (Karczewski, 2006). The documented use of fur in pre-Christian Prussia is not readily visible archaeologically, although the evidence for fur exploitation from sites in western Russia and Scandinavia reflects sustained, intense harvesting. The only comparable centre in Prussian lands is represented by the site at Janów Pomorski (Truso), a multi-cultural trading hub with limited evidence for the exploitation of local woodland resources, including fur and antler working, which disappears by the mid-eleventh century (Jagodziński, 1991). With this exception, the trend on Prussian sites does not change into the late-medieval period. Most recently excavations at Ruska Wieś, a settlement on the border between the tribal territories of Galindia and Barta dating into the mid-eleventh century with subsequent later occupation in the thirteenth/fourteenth centuries (see also chapter 2 and below), revealed only a fractional percentage of wild mammal remains (Auch & Nowakiewicz, 2009). Clearly there is a disparity between the sporadic written and archaeological sources, and wild animals were exploited to varying degrees. But when combined with the protracted evidence for habitat transformation suggested by palaeobotanical data, it is possible to suggest there was limited human impact on wild species in association with Prussian settlements before the crusading period, contrasting with trends in at least some neighbouring regions of Poland (e.g. Greater Poland; Makowiecki, 2001), Pomerania (Makowiecki, 2006) and central Lithuania.

The colonisation of Prussia in the thirteenth and fourteenth centuries saw the reduction of woodland habitats and the intensification of hunting. In their Rule (23) the brothers of the Order had been given dispensation to hunt large carnivores, specifically wolf, bear, lynx and lion for the common good, although they were forbidden to use dogs and had to employ hunters to pursue game and trap for furs (Militzer, 1997). Although other monastic orders were forbidden to hunt, for the military orders it served as valuable training for warfare and acquiring knowledge of the local landscape. The crossbow was a decisive weapon against the Prussian tribes, and shooting wild birds was recognised within the Rule as a useful means of developing skill with projectiles. However, large carnivores are typically missing from the Order's limited zooarchaeological record. Bears, which today are largely confined to the Polish Carpathians and further east, are found more regularly at early-medieval Slavic stronghold sites, where their paws may have been served as a culinary delicacy, a practice associated with the nobility in written sources from the sixteenth century (Makowiecki, 2009, p. 438). Wolves are rarely encountered, and lynx even less so in archaeological contexts, although both species are present in the forests of modern north-eastern Poland, despite systematic persecution from the eighteenth century. Whilst these carnivores are generally missing from the Order's sites, the Knights appear to have fostered a hunting culture in Prussia. According to Jeroschin (III, 26), Duke Otto left his hunting hounds with the garrison at Balga, as well as the

nets and hunting weapons he brought with him. Two of his huntsmen joined the Order and provided game for the lower Prussian houses for many years, the hounds were also bred, after which the chronicler notes hunting was practised extensively in Prussia (Fischer, 2010, p. 85). Faunal assemblages recovered from the castles of the Teutonic Knights typically contain a small proportion of wild mammals, usually cervids and wild boar, and birds, most of which would have been acquired through hunting and trapping.

An interesting comparison can be made between the castles at Malbork and Klaipėda, the two great castles framing the Order's state in Prussia. At Malbork, faunal remains had been recovered from various parts of the castle in the early-twentieth century and from trial excavations in the north-eastern part of the moat of the middle castle in the mid-1990s, but with no clear contextual information. In the last decade, excavations in the outer bailey had produced a number of faunal assemblages, some of which have been published. Material from the Order's phase is unfortunately comparatively limited; 97 identifiable animal bone fragments were recovered from ninth- to thirteenth-century contexts and 383 from the fourteenth and fifteenth centuries. The representation of wild species was very low, the early-medieval sample including roe deer and perhaps wild boar, the medieval consisting only of fragments of red and roe deer, as well as probable boar, with hare, polecat and a range of wild bird species, including eagle, only featuring from the Early Modern Period (Maltby *et al.*, 2009). At Klaipėda, the earliest zooarchaeological material dates to the last quarter of the fourteenth century, and wild species represent just over 10 per cent of the assemblage, decreasing in importance until after 1521 (Žulkus & Daugnora, 2010). The range of species is far more diverse than at Malbork, consisting of aurochs/bison, elk, red deer, bear and possibly wild boar. From contexts dating to the latter half of the fifteenth century, aurochs/bison, fragments of antler, elk, beaver, fox, red deer and wild boar were identified (*ibid.*, p. 82). The differences between the faunal profiles of these two castles can be related to their relative geographic context. Malbork was situated within the well-supplied heartland of the Order's state, whilst Klaipėda was relatively isolated within an unstable frontier region. The supplementary reliance on game in the Memelland is attested in sixteenth-century written sources, which record an abundance of species in the forests of western Lithuania, and this is also confirmed by the post-medieval faunal assemblage from Klaipėda. The lack of sieving has meant that fish remains are poorly represented in these assemblages, although fish clearly played a far more important role than game in the dietary regimes of the Order's castle communities. An exception is Mała Nieszawka (Nessau), where there is abundant zooarchaeological evidence of fishing, represented by freshwater species (e.g. pike, cyprinids) as well as migratory ones (e.g. sturgeon), both perhaps caught locally, as well as marine species (e.g. cod) probably imported as salted and/or smoked fish (see below). The integration of archaeological and written material is clearly essential for a holistic understanding of animal exploitation in the Order's state, the relationship

between the heartland and frontiers, and future discoveries will shed more light on how castle, town and village communities adapted to local environments to meet their practical and ideological provisioning requirements.

The medieval period in Prussia coincides with diminishing evidence for certain key species; the growth of towns and the process of deforestation outlined above would have destroyed their habitats and made them more accessible to hunters. Castle inspections in the fifteenth century indicate the presence of large stores of preserved game (Ziesemer, 2009, pp. 46, 96, 222), a practice which continued into the sixteenth century; 'aurochs' meat is recorded at the frontier castles of Tilsit (formerly Schalauner Haus) and Stradaunen (Straduny) in 1523 (Ziesemer, 1968, pp. 255, 296). Aurochs, widely reported in Polish sites until the eleventh century, was a rarity by the fifteenth century and became extinct in 1627. There is evidence of hunting pressure as late as the sixteenth century when, in 1531, a Königsberg merchant was accused of previously harming 'many aurochs and hinds' in the grand-ducal forests of the 'Great Wilderness' (Rowell, 1999, p. 186). Herds of European bison became confined to north-eastern Poland and parts of Lithuania, rare enough by the fifteenth century to be a suitable gift from the Polish king to the Grand Master of the Order in 1406 (Militzer, 1997, p. 357), with the last wild individual shot in 1919. The population was reintroduced through a concerted breeding programme in zoos in the 1950s. The hunting of wild ungulates by the Order has been interpreted as a response to an unstable pastoral infrastructure and the plundering of livestock during the crusading period, followed by an investment in the fur trade (Mugurēvičs, 2003b, p. 180). Hunting, as a quintessential medieval aristocratic activity, also formed an essential and spectacular element of the *Reisen* in the fourteenth century. Key castles hosted banquets for European knights participating in these miniature crusades (see also chapter 4), and invariably influence the composition of food preparation waste. The limited zooarchaeological data from Malbork may be juxtaposed with its rich inventories of stocked meat from the end of the fourteenth century (Jóźwiak & Trupinda, 2007).

Hunting and its management were also perceived as an integral element of the Order's urban colonies. The foundation charter for Kulm (Chełmno) and Thorn (Toruń) (1233) stipulates the landed townspeople could hunt wild boar, bear and roe deer, and provide the Order with the right shoulder from each carcass (Tandecki, 2005, p. 47). This stipulation was widely applied in Prussia, and may even explain the unusual representation of elements in some domestic faunal assemblages, as at the settlement of Ruska Wieś (see below). The foundation charters are very specific; maintaining free access to Lake Družno and the nearby river are referred to in Elbing's charter (*ibid.*, p. 50). In 1278, the marshal of the Order in Prussia, Konrad of Thierberg, renewed the hunting rights of their Polish knightly vassals in the Kulmerland following the Prussian Uprising, allowing them to hunt on the Order's territories (including with nets and other implements) providing they hand over the usual portion of game. The Order also granted fishing rights to its tenants to catch fish in lakes for their

own consumption using specific nets (*stoknetze*; a bag-like net stretched across a wooden frame that two people drag through the water), as well as free access to bees and the freedom to construct hives on their land (*ibid.*, p. 53).

One of the best-studied assemblages from a town established and run by the Teutonic Order is from Gniew (Mewe). Excavations in the 1970s and 1980s targeted different areas of the town revealing contexts dating from the ninth to nineteenth century, with almost 20,000 bones recovered. Wild mammals represented by hare, wild boar, red deer, roe deer, squirrel, polecat, beaver and fox form a small percentage of the assemblage and do not appear until the end of the thirteenth/start of the fourteenth century, corresponding to the presence of the Order and the gradual expansion of the town (Sobociński & Makowiecki, 1992). Beaver and wild boar were also recovered from post-medieval contexts. Within the Order's Pomeranian territories acquired in 1309, there were already well-established provisioning networks in place (see also chapter 5). Significant quantities of mammal, bird and fish bones have been recovered from several decades of excavations in Gdańsk (Kubasiewicz, 1977; Makowiecka *et al.*, 1998; Makowiecki & Gotfredsen, 2003; Makowiecki, 2003). Whilst the majority of these represent livestock, the staple of any urban centre's provisioning, a diverse range of wild species has also been identified: red and roe deer, wild boar, elk, aurochs, bear, beaver, hare, polecat, wild cat, otter, squirrel, fox and rat, as well as porpoise and seal (Kubasiewicz, 1977). These remains can be situated in the context of the changing environment within the town's hinterland (see above).

Fields and meadows

The medieval period in Prussia is a time of agricultural intensification, with widespread clearance of woodland for cereal cultivation and grazing for livestock, occurring against a backdrop of social, political and economic development. Grain, comprising rye, wheat, oat, barley and millet, was one of the chief components of the medieval diet, but a range of other 'useful' cultivated and wild plants were exploited, including fruit, vegetables and herbs, and plants used in the production of spices, oils and fibre. Evidence for the cultivation, use and trading of cereals and other 'useful' plants may be apparent in the physical, often charred macro-remains of plants in occupation deposits. The interpretation of these remains is fraught with difficulties; sample integrity and ecological precision are key concerns. In urban contexts, macrobotanical assemblages may originate from a variety of ecological zones surrounding a town, resulting from a range of human activities, forming over several years or decades and frequently disturbed and mixed by later destruction and reconstruction.

Farming in Prussia and the impact of the Order

The upper portions of many pollen sequences across northern Poland show a typical pattern of deforestation associated with an increase in cereals, particularly

rye, and plant taxa indicative of cultivated and grazed land. More often than not, however, this key horizon has been left undated, making it difficult to detect any clear pattern in the pollen data. Cultivation of rye was argued to be widespread by the second half of the tenth century (Okuniewska-Nowaczyk *et al.*, 2004) but, based as much on inferred dates, there is likely to be significant variation across Poland, particularly between east and west. Evidence along the Baltic coast between the Oder estuary and Vistula Delta suggests that woodland clearance for cultivation commences from c.AD 1000 (Latałowa, 1989). At Wolin island, intensive cultivation of rye, wheat, barley, oat, buckwheat and hemp, confirmed by macrobotanical remains, occurred from around the tenth century (Latałowa, 1992). However, at Słowińskie Błota, cereal pollen does not increase significantly until AD 1300 (Lamentowicz *et al.*, 2009). Inland, pollen sequences from three lakes in Bory Tucholskie, eastern Pomerania (lakes Mały Suszek, Suszek and Kęsowo), show a clear increase from the eleventh century in cereal pollen, particularly rye and wheat, along with field weeds and indicators of grazed land. Buckwheat, which produces only small quantities of poorly dispersed pollen, occurs in significant quantities in the Kęsowo sequence, suggesting cultivation in the immediate vicinity of the lake, surrounded by numerous settlements, including strongholds at Gostycyn, Obrowo and Raciąż. Arable activity intensified in Bory Tucholskie during the twelfth and thirteenth centuries with the almost complete disappearance of deciduous forest by AD 1200 (Miotk-Szpiganowicz, 1992).

In pre-Christian Prussia, relatively little is known about the organisation of agricultural land and pastoral regimes. Each family is assumed to have had its own livestock: cattle, sheep and goat which were pastured on shared grazing land within the local territory (see also chapter 2); pigs were kept near woodlands where suitable pannage could be provided. Bees were also kept in woods, providing honey and wax. Zooarchaeologically, the economic importance of sheep is attested at sites such as Haćkach (Podlaskie voivodeship) from the sixth to seventh century (Kobylińska *et al.*, 1998), whilst the provisioning and trade requirements of Truso required significant quantities of grazing land for herds of cattle. Indeed, cattle are reported as the most abundant domesticate on Prussian sites (Okulicz-Kozaryn, 1983, p. 134) and more widely on early-medieval Baltic sites (Žulkus, 2002, p. 173). Alongside their role in alimentation, written sources across the eastern Baltic region consistently refer to the use of livestock as sacrificial offerings (see also chapter 2). Many Prussian sites to date have had relatively small amounts of animal bone recovered and studied. Faunal material from a site as important as Jeziorko indicates the prevalence of domestic species dominated by cattle, with horses, sheep and pigs identified in smaller numbers (Krysiak, 1950). However, the small number of identified bones which were badly preserved (N=154, representing 10 per cent of the total assemblage), makes it extremely difficult to generalise even within the context of the site, let alone beyond. Written sources point to the introduction of new farming regimes following the establishment of the Order's state aimed

at extracting an agricultural surplus in tax (Urban, 2000), but intensification in crop harvesting, albeit at a low level, had begun at least a century before the crusades. Wooden ploughs had begun to be used with iron ploughshares and were pulled by horses or oxen, whilst from the twelfth century there is evidence for composite ploughs on some farms (Okulicz-Kozaryn, 1997, pp. 297–299). Iron hoes and sickles contribute to this key element of Prussian society, whilst scythes have only been reported from sites in western Lithuania and Latvia (Žulkus, 2002a, p. 174). Prussian strongholds and settlements were clearly supported by provisioning systems, and these have only begun to be mapped by palaeobotanical studies. Macro-fossils identified at Jeziorko included cluster wheat, small spelt, spelt wheat and buckwheat, associated with the processing of grain and the production of bread on site (Antoniewicz, 1950b).

German colonists intensified the use of the iron plough, with horses that were larger than the smaller native animals (Urban, 2000, p. 361). They are associated with disseminating the three-field system of crop rotation, where one field would be planted with winter crop (e.g. rye), the second with spring crop and the third would remain fallow. This enabled continuous production without depleting the soil (Koter & Kulesza, 2006, pp. 50–51). It allowed for a more sustained yield, and this intensification has been picked up in pollen studies. Cores taken from Linje Mire in the Kulmerland indicate the presence of cereal cultivation, particularly rye, in the Early Medieval Period, but this noticeably intensifies in the thirteenth to fourteenth century (Noryśkiewicz, 2005). This pattern is repeated in several pollen sequences across the Kulmerland (Noryśkiewicz, 2004a, b), including from lake-edge sediments adjacent to the Order's castle at Radzyń Chełmiński (Wynne, 2011). Further down the Vistula, evidence for woodland clearance and agricultural intensification is likewise apparent from a small peaty hollow 3 km south of Malbork, where significant quantities of rye pollen do not occur until the late-twelfth to early-thirteenth century. Clearance of hornbeam and hazel occurred from c.AD 1050, with clearance of oak, alder and birch during the middle- to late-thirteenth century. By AD 1300, little deciduous woodland remained, apart from stands of alder and birch growing on wetter soils, with an expansion in grazed heathland during the fifteenth century. Pollen evidence from Lake Drużno, 5 km south of Elbląg, produced comparable evidence, although undated, for a sharp decrease in arboreal pollen from 90 per cent (1 m) to 50 per cent (50 cm) associated with an increase in cereal-type pollen and a range of anthropogenic indicators (Zachowicz & Kępińska, 1987). Elbląg, like Malbork, is a thirteenth-century Teutonic Order foundation, raising the intriguing possibility that vegetation change in the pollen record reflects wider changes in landuse associated with the Order's control of the surrounding landscape. A phase of deforestation also occurs at this time on the Curonian Spit (see below). The development of urban centres along the Baltic coast of Poland, and the opening up of their hinterlands to foreign knights and settlers, appears to have resulted in deforestation and arable farming on an increasingly large scale. The densely populated, already deforested western

regions, such as Pomerania, became increasingly important in the production of rye for export to western Europe and Scandinavia from the late-thirteenth century, with shipments of grain up the Vistula, bound for England, recorded from the early-fourteenth century (Hybel, 2002). In 2010, excavations near the Vistula foreshore at Tczew (Dirschau) uncovered the foundations of large medieval brick buildings which probably functioned as warehouses for storing produce before shipment (Sawicki, pers. comm.). A substantial horizon of charred seeds, consisting largely of rye, was identified within the complex which appears to have been abandoned after being damaged by fire.

Castle construction was accompanied by the establishment of stables, pigsties, animal sheds, granaries, stores and mills (see also chapter 4). Grain is often recorded in the fifteenth-century inventories of the Order's castles. At Memel for example, the castle's inventories from 1404–1447 record rye, barley, oats, malt, hops, flour, peas, salt as well as the more exotic onions, figs, raisins, almonds, mustard and vinegar (Willoweit, 1969, pp. 79–80). Palaeobotanical studies of plant macrofossils are rarely conducted on castle sites but, at Malbork, samples were taken from waterlogged soil associated with the timber foundation posts in the north-western corner of the moat surrounding the middle castle. They contained evidence of radish and cabbage seeds as well as nutshell (Simmons, unpublished). Other plant species represented in these samples, such as goosefoot (*Chenopodium album*), common chickweed (*Stellaria media*) and knotgrass (*Polygonum aviculare*), reflected open ground, disturbance and cultivation; common nettle (*Urtica dioica*) was also found to be present, again indicating disturbance but also nitrogen enrichment of the soil such as that resulting from manure. Scrub plants such as elder (*Sambucus niger*) are also represented as are water-loving plant types such as sedges (*Juncus* sp.) and marsh stitchwort (*Stellaria palustris*). The construction of mills powered by horses and water to grind grain accompanied the construction of the Order's castles and towns across Prussia (see below). The earliest mills date from the fourteenth century; in 1299, the Sambian bishop gave permission to build a windmill on the high ground near Fischhausen, although the structure was only constructed in 1337 (Woelky & Mendthal, 1891–1905, nr. 190, 299). Commanderies contained varying numbers of mills for processing grain, whilst Rehden had five and both Gollub (Golub) and Strasburg (Brodnica) maintained eight, Leipe (Lipieniek) and Birglau (Bierzgłowo) only had one (Gancewski, 2001, p. 20).

The pattern in the region of the lower Vistula, and principally in Pomerania, is contrasted with that from north-eastern Poland. The few dated pollen sequences suggest woodland clearance and agricultural activity occurred at a later date and at a lower intensity (see also chapter 4). Within Knyszyńska Forest, close to the border with Belarus and Lithuania, pollen analysis from the bog at Kładkowe Bagno shows that clearance of woodland for arable and pastoral activities did not occur until the fifteenth century. Intensive colonisation and cereal cultivation did not occur until the sixteenth century, however, following successive invasions of the region from the thirteenth to mid-fifteenth century that had led to significant

disruption of the open settlement pattern in the region. Similarly, there is little disturbance related to human activity within the Białowieża Forest until the fifteenth century and evidence for cultivation is extremely sparse (Mitchell & Cole, 1998). However, evidence for an earlier intensification in human impact is apparent from pollen studies within the Great Masurian lakelands. Laminated sediments from Lake Miłkowski produced evidence for substantial anthropogenic impact on the vegetation from AD 1000, prior to the Teutonic Order, linked to indigenous Galindian settlement (Madeja *et al.*, 2010), a pattern replicated from Lake Wojnowo, 1 km to the north (Wacnik *et al.*, 2012). On the frontier, the Order supplemented its regular harvest with raids on granaries, for example in 1318, it raided Junigeda and Piestve overlooking the lower Nemunas. The Samogitians and Lithuanians, in turn, would attack and destroy crops on the Order's lands (Żulkus & Daugmora, 2010, p. 75). An agricultural surplus was not available for export from Memel until the political situation had stabilised in the mid-fifteenth century.

Urbanisation and cultivation

Investigations of plant remains from medieval urban contexts in Poland are relatively rare. The majority of studies, undertaken during the 1930s–1960s, are little more than brief communications of the range of plant remains with little broader interpretation of the data. More recently, however, analysis of plant remains from several medieval towns across the Baltic, including Gdańsk, Elbląg and Kołobrzeg in northern Poland, has provided new insights into aspects of trade, the environmental setting of towns and the diet and living standards of the inhabitants. All three developed into important trading centres during the thirteenth to fifteenth century, the former two under the control of the Teutonic Order, and all three were members of the Hanse. Historical documents indicate that Gdańsk developed into the major economic port of the area, particularly in the transit of grain and timber for export throughout the Baltic and North Sea (Latałowa *et al.*, 2007). Elbląg, located on the banks of the Vistula at the junction of key trade routes, was the administrative headquarters of the Teutonic State in the thirteenth to fourteenth century, whilst Kołobrzeg, located in north-west Poland on the banks of the River Parsęta, was an important centre in the salt trade.

A significant proportion of the botanical remains from Gdańsk are derived from 'useful' plants, particularly rye and wheat, emphasising the importance of Gdańsk as a major transit port in the export of grain throughout the Baltic and North Sea (Badura, 2011). Historical sources indicate that in the thirteenth century, most grain exported from Gdańsk came from Kuyavia, an area of northern-central Poland around the middle Vistula river basin and the upper River Noteć but, by the fifteenth century, the source of grain had shifted to Masovia in the east (Latałowa *et al.*, 2007). In comparison to Gdańsk, and with the exception of millet, cereal remains were comparatively rare in botanical samples

from Kołobrzeg and Elbląg, despite historical sources indicating the importance of both towns in the grain trade during the thirteenth and fourteenth centuries (Czaja, 2009; cf. Latałowa *et al.*, 2007). The only charred cereal assemblage from Kołobrzeg suggest the summer cultivation of six-rowed barley and winter cultivation of bread wheat and rye. Unlike Gdańsk, where a significant proportion of samples were derived from granaries, latrines and houses, botanical samples from Kołobrzeg and Elbląg were taken largely from undefined occupation layers. Instead, the greater proportion of the plant material in these cultural layers was derived from habitats outside the towns. Nevertheless, large quantities of plant remains indicative of meadows and pasture were recorded, emphasising the importance of animal husbandry and, despite the limited number of cereal remains, weeds of cultivated land were also numerous. Weeds indicating flax cultivation were more numerous in Kołobrzeg than Elbląg, where weeds associated with millet, root crops and gardens were more frequent (Latałowa *et al.*, 2003, Table 2). Although the relative importance of different cultigens cannot be accurately determined from the limited cereal remains, they do suggest the equivalent significance of winter crops at both towns.

A range of other useful plants were recorded from Gdańsk, Kołobrzeg and Elbląg. Hops, used primarily to flavour beer, were a common find in all three towns, emphasising the important role of brewing, whilst flax and hemp, both important tradable commodities in Gdańsk and Elbląg, reflect the importance of craft industries such as weaving and rope making. Other plant remains, usually recorded as single finds only, include a variety of fruits (cherry, apple, plum, pear, figs), vegetables (onion, celery, turnip, cucumber, carrot, beet), herbs (dill, betony), oil plants (rapeseed) and spices (caraway, black mustard, black pepper, nutmeg). Plants remains, such as nutmeg, originating from Indonesia, and figs, from the Mediterranean, point towards longer-distance trade during the thirteenth to fifteenth century and beyond (*ibid.*, 2007, Table 6).

The evidence for cultivation from the few urban macrobotanical studies is apparent more widely in the pollen record, but can be problematic, not least because of the difficulties inherent in separating cereal-type pollen from that of wild grass pollen (see Tweddle *et al.*, 2005 for a recent review). Andersen (1979) separated grass pollen into four groups; wild grasses, *Hordeum* group (barleys), *Avena-Triticum* group (oats and wheats) and *Secale cereale* (rye). *Secale* pollen is easily distinguishable because of its elongated, prolate form, but the *Hordeum* and *Avena-Triticum* groups are distinguished from wild grasses primarily on the basis of mean pollen grain and annulus diameter (cereal pollen being larger than those of wild grass species), but also the surface sculpturing of the pollen grain and the protrudance of the annulus. Key distinguishing features are not always easy to identify where variable preservation of pollen grains occurs, in which case some caution should be exercised in any identification based upon grain and annulus diameter alone. Millet, by comparison, can be identified only on the basis of macrofossil remains, having small pollen grains indistinguishable from wild grasses (Milecka *et al.*, 2004). Cereal-type pollen

typically only occurs in small quantities. Rye, unlike other cereals, however, is wind rather than self-pollinated, producing large numbers of grains, so occurs in greater quantities in the pollen record.

Animal husbandry: horses

Horses played an important cultural role in both pre-Christian and Teutonic Order Prussia. Their remains are rarely found on Prussian settlement sites (with the exception of the multi-cultural centre at Truso), where cattle, sheep/goat and pig are more typical (Okulicz-Kozaryn, 1997, p. 319). Instead, they are found in quantity at cult sites such as Poganowo (chapter 2) and cemetery sites. Their size is generally noted as small as in the case of the Prussian cemetery in Elbląg and at the settlement complex in Jeziorko (Krysiak, 1950, p. 232; Antoniewicz, 1950b, p. 252). However, despite the limited archaeological data, Peter of Dusburg noted some of the Prussian tribes could raise significant numbers of cavalry, in some cases several thousand horses. The Order and its allied crusading armies brought war horses with them into Prussia, arguably one of the factors responsible for their military victories over the indigenous tribes (Ekdahl, 1998). Large horses were bred by western Slavs in Bohemia, western Pomerania and the Polabian Slavs in the region of modern eastern Germany (Makowiecki, 2001, p. 99; Makowiecka & Makowiecki, 2007, p. 267). But even in Poland, where horses were smaller, two sizes can be distinguished from the zooarchaeological data; pack and cart horses standing at 110–130cm at the withers and war horses and riding horses standing at 130–140cm (Makowiecki, 2009, p. 434). At Gniew for example, four types of horses were recognised, the earliest from the end of the thirteenth century with an estimated withers of 117cm increasing up to 136–145cm in the post-medieval period (Sobociński & Makowiecki, 1992, pp. 179–181; Sobociński, 1992, pp. 137). The Order's horses were significantly bigger than local Prussian breeds, often referred to as *Sweik* (*Schweike*), which were also bred by the Order as pack animals and for use by couriers. Indeed, two sizes of horses were identified in the faunal assemblage recovered from an industrial quarter of the forecastle at Malbork, and pathologically fused spine fragments indicative of heavy load bearing could represent remnants of war horses which would have been stabled nearby (Figure 7.5) (Pluskowski *et al.*, 2010b).

The Order's knights and allies brought horses within them from various regions of the Empire and horse breeding became a distinctive feature of the *Ordensstaat*. Their strategic importance is testified in Jeroschin's *Chronicle*, which contains multiple references to the role of horses in battle as well as their theft (Fischer, 2010, p. 19). Hermann of Wartberge provides the first detailed description of a stud farm (near Insterburg; Russian Chernyakhovsk) taken by the Lithuanians in 1376, with 50 mares, two stud horses and 60 war horses and foals (Ekdahl, 1998). By 1400, an estimated 16,000 horses were documented on the Order's estates in Prussia, half of which were war horses; the catastrophic decimation of the Order's forces at Tannenberg necessitated the import of new equine stock



FIGURE 7.5 Pathological lower spine from a horse recovered from medieval contexts in Malbork castle's outer bailey

into Prussia (Ekdahl, 1991). Mares were typically kept on the Order's estates and farms, whilst stud horses were more often stabled in the outer baileys of castles to ensure their safety and proper care. In some of the western Prussian castles such as Marienburg and Engelsburg (Pokrzywno), these stables were impressive buildings in their own right; an estimated 1,000 horses could have been stabled in the outer bailey of Marienburg in the mid-fifteenth century (Jóźwiak & Trupinda, 2007, p. 440). Excavations at castles and towns have uncovered the disarticulated remains of horses, suggesting that after expiration their carcasses were knackered and dumped in waste pits. Horse meat was not typically consumed except in times of crisis, especially in active military zones. During the Great Prussian Uprising, some of the Order's garrisons were reduced to starvation after being cut off from their supplies, and were forced to eat their horses, and even their hides (Jeroschin, III, 95; Fischer, 2010, pp. 138–139). Given the investment in horse breeding, it is not surprising equine welfare was taken very seriously by the Order: the earliest veterinary manual for horses in German, *Liber de cura equorum* (1408), was dedicated to Grand Master Ulrich of Jungingen.

Animal husbandry: livestock

The Rule of the Teutonic Order (13) clearly permits the consumption of meat, which was usually, or at least officially, shunned by monastic institutions:

On three days, Sunday, Tuesday, and Thursday, the brethren of this Order are allowed to eat meat; the other three days they may eat cheese and eggs, and on Friday they eat fish; however, they may eat meat every day on which Christmas Day falls, even if it falls on a Friday, because of the joy of the holy season.

(Sterns, 1969, pp. 219–220; Trupinda, 2011, pp. 26–27)

Archaeologically the role of livestock is most visible in two types of site: castles and towns. There are clear changes in the representation of livestock associated with the process of urbanisation from the thirteenth century which, in turn, reflected shifts in rural provisioning. All three major domesticate groups – cattle, pig, sheep/goat – were much smaller in size than their modern counterparts, but there is surprisingly little work on the morphological differences between Iron Age and medieval types in Prussia. Cattle and pigs had been equally important in early-medieval settlements, but the meat and deadstock supplies for later town communities consisted largely of cattle and, to a lesser extent, sheep (Makowiecki, 2009, p. 432). Poultry are less diverse in Polish faunal assemblages, domestic fowl (*Gallus gallus f. domestica*) represent the largest group throughout the Middle Ages; ducks have only been kept for culinary purposes from the last century, whilst numbers of domesticated geese pick up from the sixteenth century (Makowiecki, 2008c, pp. 65–66). The faunal assemblage from the Old Town in Gniew, run by the Order from 1276–1464, was dominated by domesticates and particularly by small, short-horned cattle aged between 2.5–3 years, pigs of variable size aged 2–3 years and 6–12 months, and sheep and goats of comparable size with similar age categories of 9–12 and 12–19 months, and older than three years (Sobociński & Makowiecki, 1992). Although beef was the staple meat for the town community as a whole, more pig remains were recovered in the area of the market square, perhaps reflecting less wealthy residents as pigs bred for relatively short periods of time exclusively for meat were cheaper to maintain (Sobociński, 1992), or alternatively they represent specific areas for butchery and disposal.

Specialised pastoral farming regimes, suggested by later written sources, are most visible archaeologically at rural sites; animals were generally taken from farms into towns and castle baileys on the hoof and slaughtered by butchers on site. Preliminary excavations at the edge of the medieval site at Biała Góra uncovered an assemblage of over 3,000 bone fragments. Although this is only a small sample, it has a distinctive profile that reflects both the local ecological and cultural context, and the site may have functioned similarly to a *Vonwerk* (see below). The settlement was situated on an escarpment overlooking a bend in the River Nogat and on the western edge of the Sztum Forest. Whilst this environment was not particularly suited to cattle and sheep rearing, it was ideal for pigs. The prevalence of pigs, which were slaughtered and butchered at the settlement, is attested in the relative representation of domestic species identified in the faunal assemblage. A significant quantity of fish bones was also recovered,

again reflecting the exploitation of a readily accessible resource (Pluskowski *et al.*, forthcoming). But meat was also supplied to the Order's castles as payment of tax in kind. This may explain the composition of the faunal assemblage recovered from the settlement of Ruska Wieś, where choice cuts of beef and pork were absent (Auch & Nowakiewicz, 2009). The later written sources paint a composite picture of meat provisioning with the Order's state, involving a hierarchy of castles, farms, settlements and towns. In 1370, the Order's Prussian estates held 10,482 cattle, 18,992 pigs, 61,252 sheep but, by 1400, numbers of documented cattle had fallen, whilst sheep and pig had increased (Jähnig, 1989, p. 125).

These figures will never be replicated archaeologically, but relative proportions of meat from these major domesticate groups can be estimated at individual sites. At Klaipėda, cattle, sheep and goats dominate the faunal assemblage throughout the medieval and Early Modern Periods, followed by pigs. Here, raids into Lithuania and Samogitia to steal cattle and horses were relatively common (Žulkus & Daugnora, 2010, p. 75). The number of horses, as suggested by both written and archaeological sources, increases from the mid-fifteenth century alongside political stability in the region, followed by relatively more game species from the mid-sixteenth century (Žulkus & Daugnora, 2010, p. 85). At Malbork, there was a fairly even representation of cattle, sheep/goat and pig from medieval contexts, with evidence of whole carcasses being processed on site as well as the preparation of joints of meat, compared with the prevalence of sheep from early-medieval layers (Maltby *et al.*, 2009). Given the scale and complex taphonomy revealed by the excavations, these relative proportions must be treated with caution and a detailed study of the castle's written records integrated with material recovered from future excavations will provide a more nuanced perspective on animal exploitation by the various communities, not least of all the knights, inhabiting the castle complex. To give one example of the disparity between the sources, the inventory of the official in charge of livestock and dairy at Marienburg, the *Viehmeister*, records 250 horned cattle, 925 pigs and 2,300 sheep in 1381 (Jóźwiak & Trupinda, 2007, p. 426).

In addition to the use of livestock for meat and dairy, horn, skin and bone were fully utilised within the workshops of the Order's castles, towns and settlements (see also chapter 5). These could amount to considerable quantities and represent a significant manufacturing industry within the Order's state, drawing on extensive animal resources. In Marienburg in 1409, at least 1,200 billy-goat horns and 36,000 sinews used in the production of crossbows are documented (Ekdahl, 1998). Archaeologically, this is visible in diverse evidence from horn, antler, bone and leatherworking recovered from the outer bailey, manufacturing practices which are in fact better represented in early modern contexts (Maltby *et al.*, 2009, pp. 198–199, 206–210). The Order's chancellery at Marienburg alone required vast quantities of vellum for its formidable bureaucracy, the skins carefully selected from its considerable herds. It is clear that the animal resources of the Order developed over the thirteenth

and fourteenth centuries were impressive and carefully regulated and, in turn, the requirements for grazing land and fodder, especially in the Vistula region and Sambia, must have been equally imposing. However, written sources point to relatively late peaks in animal husbandry; horses in the first decade of the fifteenth century, cattle from 1380–1390 and sheep in the last decade of the fourteenth century (Gancewski, 2001, p. 32). Given the fragmentary nature and typically late date of these written sources, future zooarchaeological studies will shed valuable light on this crucial aspect of the Order's state.

Wetlands

The rivers and streams that cut through the forests and marshes of Prussia were its main communication routes. Passes between the great lakes of Masuria became foci for settlement complexes and strongholds; the three largest moraine lakes – Mamry, Niegocin and Śniardwy – encompassed an area of over 320km² (Okulicz-Kozaryn, 1983, p. 26). The importance of the Vistula has already been emphasised but its tributaries, such as the Narew, were equally vital for the movement of goods and people, providing attractive locations for both early and late medieval settlement (see also chapter 2). Analysis of macrobotanical remains and phytoliths from recent excavations at the Order's castle in Grudziądz (Graudenz), built directly on top of a Slavic stronghold dating from the eleventh century, indicates evidence of nearby open grassland and marshy environments, corresponding well with the location of the early-medieval settlement in close proximity to the Vistula, and engaged in various forms of fishing, animal husbandry and (most likely) cereal cultivation. Significant quantities of fish scales and bones were also recovered from these contexts (Carson *et al.*, 2012).

During the crusading period, the Prussian wetlands were most active in winter when the many streams, lakes and bogs froze over, making them passable. As a result, most of the military campaigns of the Teutonic Order were conducted during this time, a season when the ravages of warfare would have also been at their most brutal. The path of the Prussian Crusade followed the main watercourses, initially down the Vistula along the western side of Prussia and then across the north-east, in turn reflecting the foundation of many commandery castles and towns. This was crucial to maintaining a successful network of communication and supplies. The high density of wetlands in eastern Prussia is clearly visible on a hydrological map and the Teutonic Order became familiar with the network of waterways that cut across tribal lands and facilitated their conquest (Kochański, 2001, p. 467). However, once established, the Knights engaged in significant hydrological projects; rivers and lakes were diverted with canals to feed channels, moats and ponds. Water mills were constructed all over Prussia, with the oldest example of such a structure recently recovered in the Kulmerland (Wiewióra, pers. comm.); the evocative structure within the castle at Malbork was reconstructed by Conrad Steinbrecht

in the early years of the twentieth century. A canal constructed by the Order linked Lake Dąbrówka, in turn fed by a number of smaller lakes, to the moat complex at Marienburg, 12km north-west (Figure 7.6). The canal, which is still visible today as a major hydrological feature in the landscape, provided ideal conditions for constructing mills and the whole stretch was named *Marienburger Mühlgraben* (Długocki *et al.*, 2004, p. 17) (Figure 7.7); later, the canal would be extended to a length of around 40km as far as Lake Dzierżgoń (Haftka, 1999, p. 167). The construction of the town of Lautenburg prompted the



FIGURE 7.6 The hydrological system feeding Marienburg's (Malbork) moats, as documented in the mid-fifteenth century (aft. Długocki *et al.*, 2004)



(a)



(b)

FIGURE 7.7 Part of the Teutonic Order's canal at Jurkowice (a) and closer to Malbork where it became lined with mills. This is the only surviving mill building in Malbork with some fabric dating from the fifteenth century (b)

construction of a canal directing water from the upper Wkry to the River Wel in the 1320s. The Order also constructed a canal between Tiborlager (Ciborz) and Lautenburg (Lidzbark Wielski) in the mid-fourteenth century and built a dam on the River Wkrze, channelling water to strengthen the flow of both the Wel and Drwęca rivers to improve communicability (Powierski, 2001, p. 196). Canals also integrated the moat systems of the Order's castle with the Old and New Towns in Thorn. Here, a stream named Bostolz was channelled to provide drinking water, fill the castle moat and power mills (Czacharowski, 1983, p. 39). The hydrology of Prussia was not only being transformed by the activities of the Order. In the vicinity of Elbląg, the gradual sedimentation and shrinkage of Lake Drużno had been affecting boat transport since the Viking Age, and access to Truso by water had been much easier compared to the late-medieval colony. Nonetheless, the town itself was equipped with an impressive hydrological system. Excavations within the Old Town of Elbląg have revealed how wooden pipes (initially planks covering a chute, later constructed from logs and, in some cases, replaced by stoneware) distributed water around the town, with occasional examples of wooden, mortar or even brick wells. The provisioning of water was developed alongside the drainage of sewage which was channelled through log-lined ditches (Nawrońska, 2004, pp. 316–317).

Further east, there is also evidence for hydrological modification. The water levels of the Masurian lakes have changed several times in the last two millennia; the first key episode coincides with the period of colonisation following the crusades, when new settlements and water mills were being established and cultivated arable land was being developed at the expense of woodland (Karczewski, 2008, p. 64). The construction of multiple mills would have had a cumulative impact on local lake levels, but the extent of this is unknown due to the limited evidence. The networks of canals linking the various lakes would only develop in the second half of the eighteenth century, and nineteenth- and twentieth-century hydrological works saw the standardisation of water levels across the region. This has resulted in the submerging of some earlier settlements, such as the Early Iron Age village near Bogaczewo, originally situated half a metre above Lake Boczne and today submerged 2.5m below the surface (Łapo & Ossowski, 1995). Likewise, between the Vistula and Nogat, significant hydrological modifications by Dutch engineers in the eighteenth century dramatically changed the medieval fenland landscape. In Gdańsk, the main branch of the Vistula shifted from the castle by around 600–800m in 1371, at which point the Order redirected the lower branch of the Motława to the north-east and its former south-western branch and part of the Vistula were channelled into the moat of the outer bailey (Paner, 1998–1999, p. 104).

The Order's state incorporated Prussia's 'amber coast' which was punctuated by key trading towns. Memel was positioned at the northern end of the Curonian Lagoon, the largest coastal lagoon in the Baltic Sea. Today, the lagoon is home to around 50 species of fish and the spit provides shelter for large numbers of migrating birds. Studies of buried soils have indicated that

originally wooded, this narrow, sandy spit, which is almost 93km in length, had gradually begun to be deforested and replaced with grazing land from c.1275–1290, coinciding with the period of colonisation and the establishment of new settlements. This was followed by the creation of dunes, although significant areas of woodland remained into the late-seventeenth century/early-eighteenth century (Moe *et al.*, 2005). From the mid-nineteenth century, the spit was reforested with conifers to protect coastal villages (Olenin & Klovaitò, 1998). The Vistula Spit almost cut off its lagoon from the Baltic. In the Middle Ages, the range of lagoon lakes on the Baltic coast was more extensive; differences can be seen by comparing cartographic material from the first and second half of the twentieth century (Rosa, 1963). The connection between the delta of the River Nemunas and the Curonian Lagoon from the tenth century facilitated the development of Prussian (specifically Sambian) and Curonian trade routes (Žulkus, 2006, pp. 22–23). Conversely, gradual silting had made navigation through the Vistula Lagoon to Elbing increasingly difficult by the fourteenth century, whilst changes in temperature accompanied by falling sea levels exposed previously submerged sandbanks and prompted the development of new dune systems. In the coastal plains of north-eastern Prussia, sand blowing along the coast in the Memelland covered fields and drastically affected the growth of crops, as documented in the sixteenth and seventeenth centuries (Mager, 1960, pp. 255–260).

It is worth noting that some of the naturally occurring raw materials of these wetlands became intensively exploited following the crusades. Clay was quarried on a scale previously unknown for the construction of brick castles, town walls, merchant houses and churches. The availability of bog iron resulted in the establishment of ironworking centres in, amongst other places, Wielbark, Nidzica, Rudzie, Wądołku and Szczytnie in the fourteenth and fifteenth centuries (Okulicz-Kozaryn, 1983, p. 33).

Hunting and fishing in the wetlands

The wetlands of Prussia provided habitats from a diverse range of birds and mammals. The most important species associated with this environment is the European beaver (*Castor fiber*). Beavers have their own impact on the landscape, clearing fringes of woodland and damming streams and rivers. In recent years, beaver populations, which are protected, have been re-colonising several regions of northern Poland (e.g. around the lower Vistula and Elbag) even prompting occasional culls in response to the damage they have inflicted on woodland. In the thirteenth century, the beaver was exploited for the international trade in luxury furs, for medicinal purposes and as an appropriate Lenten food; since beavers (like otters) shared their environment with fish they were classified as such. The value of beaver fur was recognised in the planning stages of the Prussian Crusade: in 1230, Konrad of Masovia included the right to hunt beavers in the Kulmerland in his grants to the Order (Militzer, 1997, p. 336).

Beaver bones have been reported at medieval Prussian sites (e.g. Biała Góra) but there is currently no evidence to suggest a detrimental impact on beaver populations following the crusades. The species is documented around the Nemunas and Pripyat tributaries into the twentieth century (Czech & Lisle, 2003, p. 92) but, as demonstrated in recent decades in North Poland, it is quick to recover and re-colonise its preferred habitat. Wetland birds, such as heron and crane, were also hunted and trapped for their meat (Makowiecki, 2007) but, as with other wild species, their remains are infrequently encountered at sites in Prussia.

The numerous lakes and rivers of Prussia and proximity to the Baltic Sea provided opportunities to harvest a diverse range of freshwater and marine species. There is evidence for localised fishing associated with settlements in the Migration Period and early-medieval Prussia (e.g. Zabilska *et al.*, 2009), even a reference to a Prussian fish pond in Scalovia in Nicolaus' *Chronicle* (III: 181; Fischer, 2010, p. 186). The Prussians fished extensively with a standard set of equipment and also used traps – branches were nailed down with pegs in the bottoms of lakes and rivers, across the width of a river or across the inlets of lakes. Peter of Dusburg notes how one group held up in a stronghold in Nadruvia survived on fish from the nearby lake for over nine years. Sea fish exploited into the twelfth century were predominantly herring, which prefer relatively shallow waters.

The creation of convents, towns and colonising settlements created a new demand, facilitated, in turn, by the trade networks developed within the Teutonic Order's state. The Order itself became a significant consumer of fish, which served as fasting food (along with beaver, see above). From the very onset of founding towns, the Knights controlled all fishing rights within their territories and distributed privileged access to rivers and lakes, amongst other natural resources, to their tenants. Fishing techniques and the use of nets, weirs and traps were also regulated; in 1318, the use of a net referred to as a *Cütel* was prohibited in Frauenburg (Frombork) (Cios, 2009, p. 76). Fishing rights were especially reserved for brothers of the Order in the Vistula Lagoon, half a mile from the place referred to as Piasek (Łacha), where many branches of the Vistula met. Marine fish, particularly herring and cod, were transported up the Vistula to the southernmost parts of the Order's state and some were traded as far away as Scandinavia and England. The provisioning of fish at castles was organised by the fish master (*Fischmeister*), who resided at either a select farm within the commandery (e.g. Szarpawa within Marienburg's territory) or at the castle itself (e.g. as at Elbing and Graudenz). Fish, whether dried, smoked, salted or fresh, were stored in barrels at each castle, and their remains recovered from castle excavations represent food preparation waste (Figure 7.8).

Fish ponds were constructed at the Order's castles in Thorn and Marienburg (Figure 7.9) and, whilst this practice may have originated in the Order's Bohemian holdings (Chęć, 2009, p. 70), they were also comparable to the structures often associated with contemporary rural monasteries. Many castles were situated in close proximity to lakes, so the presence of a fishpond for the purpose of keeping stock would have been unnecessary. Indeed, Cistercian monasteries in western

FIGURE 7.8 Fish remains recovered from excavations at the Teutonic Order's castle at Mała Nieszawka (Nessau) (aft. Iwaszkiewicz, 1991)

<i>Species</i>	<i>Number</i>
European sturgeon (<i>Acipenser sturio</i>)	31
Northern pike (<i>Esox lucius</i>)	114
Zander (<i>Stizostedion lucioperca</i>)	13
European perch (<i>Perca fluviatilis</i>)	9
Wels catfish (<i>Silurus ganis</i>)	5
Common bream (<i>Abramis brama</i>)	32
Crucian carp (<i>Carassius carassius</i>)	3
Baltic cod (<i>Gadus callarias</i>)	561
Common roach (<i>Rutilus rutilus</i>)	11
Asp (<i>Aspius aspius</i>)	1



FIGURE 7.9 The former fish pond at Malbork castle, just north of the outer bailey

Poland appear to have predominantly sourced fish from their own lakes, although in the autumn and winter months it would have been easier to draw on stores of conserved fish and other aquatic animals such as beaver (Wyrwa & Makowiecki, 2009). The construction of ponds may have had as much to do with prestige as with access to fresh fish. At Marienburg, a series of ponds were cut into the floodplain of the Nogat north of the outer bailey in the late-fourteenth century. They were connected to each other with a series of canals, enabling the breeding of stockfish to be segregated into different stages of spawning and fattening. These ponds were fenced and kept free of ducks, otters and ice in the winter in order to protect the fish. In its charters to towns, the Order retained exclusive access to any ponds constructed for its castles (Tandecki, 2005, p. 53).

Sturgeon was considered the most valuable fish, along with its caviar. The migration routes of this Baltic species took them far up the Vistula and the increase in sturgeon fishing coincides with the formation of the Polish state in the tenth century (Cios, 2009, p. 76). At Kałdus between the tenth and twelfth centuries, sturgeon remains represented 12 per cent of the entire fish assemblage, at a time when stocks were decreasing due to overfishing (Makowiecki, 2008b), and the development of Prussian towns put further pressure on the species, with the best known assemblage recovered from medieval contexts in Elbląg (see also chapter 5). Subsequently, sturgeon is noted in the inventories of the Teutonic Order, and there are even records of live individuals at the court of the Pomesanian bishop in Riesenburg (Polish Prabuty) and at the Chapter in Marienwerder. Most sturgeon remains are found at sites close to the Vistula (which includes all late medieval examples) or its tributaries, such as at Zwiniarz on the Drwęca (Warmian-Masurian voivodeship). Baltic sturgeon are regularly mentioned in the documents of Memel in the fifteenth century and continued to be caught in the Curonian Lagoon and nearby sea into the seventeenth century (Žulkus & Daugnora, 2010, p. 79). There are numerous documentary sources on fishing associated with the Order and a limited number of assemblages recovered from the Order's castles at Mała Nieszawka (Nessau), Toruń and Malbork (Chęć, 2009) and, most recently, from Biała Góra (Zabilska & Makowiecki 2010; see also chapter 3). At Mała Nieszawka, where 1,301 fragments of fish species were identified, the largest late medieval assemblage of this type from Poland, the Order predominantly consumed marine fish – cod (982 bones) and herring, as well as sturgeon, bream and carp (Makowiecki, 2003, pp. 126–127). Alongside herring and cod, the remains of pike, eel, bream sturgeon, tench, salmon, perch, roach and zander are documented (Chęć, 2009, p. 70). The documentation of at least two types of carp within the Order's inventories is interesting, for it represents the first evidence for the widespread consumption of this species in the south-eastern Baltic. Indeed, the proliferation of cod has been linked to the introduction of German culinary culture, already evident in the faunal assemblages from Gdańsk and Kołobrzeg before the crusade (Makowiecki, 2001).

Isotopic studies of fish in northern Europe have dramatically increased in recent years, and analyses have now extended to material from medieval Prussian

sites. These are at present limited to a single cod vertebra from thirteenth-century levels at Elbląg which contributes to the notion that at this time stockfish were imported from Scandinavian regions, such as Arctic Norway. Three cod cleithra from fourteenth- to fifteenth-century contexts at the castle in Mała Nieszawka appear to be sourced from eastern Baltic catches, confirming studies of the faunal material that fresh cod were shipped upriver to the castle, at a time when local fishing was becoming more important (Makowiecki, 2003). From this limited data, it is possible to suggest a hypothesis where Christian settlements in Prussia relied on imported stockfish in the thirteenth century during a time of political instability and limited infrastructure and, once the Order's state was well established, this stimulated a local fishing industry (Orton *et al.*, 2011). However, there is some evidence of overfishing resulting from this. Herring appears to have become rare in Prussian waters in the fourteenth century and, by the end of the fifteenth century, its export had been replaced with German and Scandinavian imports to Danzig and Memel (Žulkus & Daugnora, 2010, p. 79). Fish played an important role in the dietary regimes of the Order's and bishops' households, but Christian colonists and converts throughout Prussia stimulated a culture of fasting well established in Catholic Europe. In fact, a burgeoning trade in fish is already evident in neighbouring regions – Pomerania, Kuyavia and Masovia – from the tenth century. Significant quantities of fish bones and fishing equipment have been recovered from excavations in Gdańsk and Szczecin; the strengthening of Christianity in twelfth-century Pomerania with the regular observance of 150 fasting days would have prompted a high demand in urban centres (Rulewicz, 1994), a trend that can also be expected within medieval Prussia.

Provisioning the Order's state

The progress of the crusades against the Prussian tribes was supported from the onset by an organised provisioning network, initially focused on the Vistula. Following the military conquest of the region and the establishment of a permanent network of castles accompanying the formation of commanderies, provisioning became more developed and embedded within the landscape. This was dependent on specialised farms (German *Kreuzrittervorwerk* or simply *Vorwerk*; Polish *folwark*), the equivalent of manorial farms or monastic granges directly involved in plant cultivation and animal husbandry. These farms were designed to supply the Order's castles through a hierarchical chain of provisioning and around 200 were established within the Order's territories; the commandery of Marienburg was supported by 20 such *Vorwerks* by the end of the fourteenth century. In the densely settled Kulmerland, the most developed landscapes were administered by the castles at Strasburg, Thorn, Graudenz and Bischöflich Papau (Papowo Biskupie), as well as the voigtship of Leipe, whilst the commandery of Althausen Höhe contained around one-third of all the *Vorwerks* in the entire region (Gancewski, 2001, p. 20). These sites were situated relatively near castles and in close proximity to major communication routes, often with access to

water and at the edges of large stretches of woodland. Each farm became tailored to its local environment, which across the diverse landscapes of Prussia resulted in regionally specialised provisioning centres. For example, the farms at Laski and Górki specialised in horse breeding, at Szkarpa (Scharpau) the focus was on fishing and at Benowo (Bönhof) it was woodland management. They also functioned as local courts, horse stopping stations and accommodation for travelling knights; indeed a *Vorwerk* would often act as a stimulus for settlement growth (Chęć, 2003a).

The distribution and multiple functions of the Order's farms are known predominantly from written sources, which provide only fragmentary sets of information from the later decades of the fourteenth century through to the sixteenth century (Gancewski, 2007). However, some have also been identified archaeologically (Figure 7.10). Excavations at Małowe Małe (Montow) in the northern fenlands of Marienburg's commandery revealed the largest building in the complex, an elongated structure with dimensions of $142.7 \times 13.8\text{m}$, was constructed on very shallow foundations in the 14th century (Chęć, 2003b). The structure was dismantled and the bricks re-used in the post-medieval period (Chęć, 2003b). Future excavations of these complexes promise to contribute significantly to an understanding of the Order's impact on the Prussian countryside, particularly with the *longue durée* perspective offered by archaeological and palaeoenvironmental investigations. The use of brick has already been discussed in previous chapters, and the diversity of brick structures attributed to the Teutonic Order is expanding with new archaeological discoveries (see also chapter 4). However, an important environmental dimension to this is the significant quantity of clay that would have to be sourced and transported to castles and towns. It is assumed this clay was obtained locally, particularly in the case of the Vistula castles, but future geoarchaeological studies of brick, particularly where it has been recovered from thirteenth-century archaeological contexts, may shed new light on this. Not all of the Order's castles and towns could be supplied from their own hinterlands, or the network of manors in the Order's state. Memel, for example, imported many food items in the fourteenth century, such as ale, wine, mead and salt directly by boat. In turn, the *Fischmeister* of Memel's commandery supplied Marienburg, Königsburg and Elbing with fish, obtainable from the Curonian Lagoon, Nemunas and the Baltic. As with the Order's castles elsewhere, the brothers at Memel always took their share of fish catches, even after the townspeople were granted the right to fish in the sea and bay in the second half of the fifteenth century (Žulkus & Daugnora, 2010, pp. 78–79). The castles and towns along the Vistula also took advantage of their location and the continuous movement of merchant ships carrying supplies between the Kingdom of Poland, the Order's state and the rest of the Baltic. Marienburg, the site of chapter meetings involving hundreds of delegates, drew on resources from across the Order's state to meet these irregular provisioning demands. In 1391, Konrad of Jungingen sent out orders to the voigts and commanders of 15 castles to supply the meeting of the Chapter with fish (Jóźwiak & Trupinda, 2010, p. 35).



(a)



(b)

FIGURE 7.10 The remains of *Vonverk* buildings at a) Mątowe Małe (S. Ługowski in Chęć, 2003b, p. 395) and b) Benowo

Defining the colonising landscape

The colonisation of Prussia was accompanied by the introduction of new systems of organising landuse, from fields through to managed woodland and regulated wetlands. But landscape features were also used to define the Order's territory; a common practice across medieval Europe. The boundaries of commanderies, in some cases corresponding to earlier tribal boundaries – or at least as they were imagined in Christian sources – were largely defined by and influenced the location and distribution of settlement. Despite the importance of major rivers in the south-eastern Baltic region, they only functioned as borders in exceptional cases (Powierski, 2003). As the Teutonic Order's state expanded, contracted and fragmented, its borders were reconfigured around other features in the landscape. In the first decades of the fifteenth century, during the wars between the Order and Poland, the borders between the Order's state and Masovia were partly delineated by vegetation. Documents belonging to the Order describing these borders refer to a range of trees, water bodies and topographic features. They provide a detailed snapshot of the delineation of the landscape. For example, one of the markers of the border agreed between the Masovian Prince Janusz I 'the elder' and the commander of Osterode Burkhart of Mansfeld in c.1374, was an oak tree next to the River Orzyc through to the River Wincenta, to *das grose Sprink* – the source of the Wincenta, then to the Biebrza and from there to the Narew. Between the Orzyc and the Wincenta the border would run straight (Długokęcki & Kowalczyk, 2003, p. 33). The border west of the Nida consisted of a wood, then a meadow belonging to the innkeeper from Rywocin through to a marsh west of Rywoci, then past a *Mozebruch* or *Moosbruch* – a marsh or bog overgrown with moss, next to the road. The boundary was also marked by an embankment (referred to as *Landwehr* in the Order's documents and *fossata* in Masovian documents) built in 1343 but never completed – it exists today in varying states of preservation stretching 25km.

Descriptions of the border between Masovia and the south-eastern borderland of Prussia from the first half of the fourteenth century correspond with routes within the woods and formed convenient markers for delineating territory; landmarks – marshes, lakes, rivers, woods – were established as guides for trade routes leading into Rus' lands, with some of the sites bearing Baltic names from the Iron Age (Prussian names or versions of Polish counterparts), subsequently adapted to Latin and German by the Order's clerks. There is a topographic relationship between these routes and two lines of horizontal ramparts, which stretch for more than 20km and may have been built by the Masovians in the first half of the thirteenth century or earlier, to act as a frontier defence and to protect travelling traders against local attacks from the Prussian side. This area became the property of the Order in 1343 (although the exact border was not fixed until the early-fifteenth century) and so the Knights or even the Ermland bishop may have been responsible for the ramparts to protect against the Lithuanian side of the border from the 1360s. The southern ramparts were associated with marshes and protected an area of around 50km between Orzycze and Turośla

(Kowalczyk, 1999). However, the border area of eastern Prussia did not function as a clearly demarcated line, but rather as a series of tentatively controlled hinterlands, contested throughout the thirteenth and fourteenth centuries before the formal establishment of a border in 1422 (Rowell, 1999, p. 201), and its later, relatively more precise demarcation (see also chapter 8). The creation of the Teutonic Order's state imposed a new template of political and social organisation on the Prussian and Pomeranian landscapes, and the environment clearly played an important role in defining these new territories.

Conclusion: transforming the medieval Prussian landscape

The creation of the Teutonic Order's state in Prussia prompted one of the most significant transformations of the landscape since the retreat of the glaciers. Before the crusades, there had been no major changes in vegetation since the Neolithic, and therefore the environmental transformations of the thirteenth and fourteenth centuries can be tentatively described as an ecological 'event horizon' which led to the formation of the modern south-eastern Baltic landscape. Prussian incursions, the abandonment of borderland sites and then the events of the crusades in the thirteenth century may be identifiable between the two peaks of pollen diagrams from Prussia corresponding to early and late medieval phases of colonisation.

The introduction of new agricultural regimes is well known from written sources, which provide snapshots of the economies and provisioning systems of castles, towns and farms, particularly from the late-fourteenth century. The contribution of environmental archaeology is twofold; a diachronic multi-regional perspective providing a new context for the ecological changes following the crusades, and a window into the nuances of individual micro-regions, shedding more light on the differences between the Order at the institutional level and at a local level. Synchronised with the high resolution of select documentary sources, it may eventually be possible to query the extent to which the process of colonisation of Prussia was unique, or whether the peculiar nature of the Order's state was also reflected in its systems of provisioning, resource use and the conceptualisation of plants, animals and landscapes. At present, there are many limitations in the nature of the available evidence. The picture from the pollen record is clearly unsatisfactory, and it is not yet possible to develop detailed patterns of vegetation change at a fine temporal scale. This problem can be overcome with more focus on the upper parts of core sequences, with more radiocarbon dates providing a robust chronology. The issue of chronological resolution can be refined further through the identification of tephra (volcanic ash) horizons in peat deposits. There have been more than 200 Icelandic volcanic eruptions in the last 1,000 years (Wastegård and Davies, 2009), transporting and depositing particles of volcanic ash across northern Europe. Ash from individual tephra horizons may exhibit distinct trace element signals that can effectively act as a fingerprint for specific documented volcanic eruptions.

The eruptions and resulting ash falls are comparatively rapid events that can therefore provide accurate temporal marker horizons within pollen sequences. More sequences also need to be recovered in close proximity to castle sites and at select points within their commanderies in order to study the direct impact of these structures on the landscape. Faunal remains and plant macrofossils are likewise unevenly recovered, analysed and published, particularly from the Order's sites. What then is it possible to say with the available data?

The process of ecological transformation was protracted, with anthropogenic impact increasingly noticeable eastwards. Landscape transformation and environmental exploitation in the thirteenth and fourteenth centuries can be situated within long-term trends associated with the rise and expansion of the Polish state. In this respect, medieval Prussia is a model of western, Christian European colonisation, but at the same time the specific agendas of the Teutonic Order and the Prussian bishops promoted incremental ecological adaptations reflecting the systematic construction of fortified convents, the protracted process of colonisation, urbanisation and the reorganisation of trade and provisioning. Initially, the clearances appear to reflect the expansion of crop fields, as well as the colonists' building and fuel requirements. Subsequently, the Prussian surplus of timber and rye is exported to north-west Europe. The impact on local fauna can be summarised as a combination of new animal husbandry regimes and the intensification of pastoral farming, opportunistic hunting that varied depending on the locality and the development of a fishing industry. Ultimately, the transformation of the landscape would have created new habitats whilst destroying existing ones. The presence of significant areas of woodland into the fifteenth century, even in the heartland of the Order's state in western Prussia, indicates some form of management, whilst the environment of the interior and of the north-eastern frontier remains less well known from an archaeological perspective. It is particularly here that future environmental archaeological research – currently being undertaken within the framework of the 'Ecology of Crusading' research programme (2010–2014) – may shed new light on the long-term impact of the crusades. With the sustained dissemination of Christianity, the landscape of pagan spirituality was reconfigured as a network of parishes. The meanings attached to sacred groves, lakes and other natural features were gradually forgotten, preserved only in place names, continuously reinvented folk tales and as testimony to a fading world-view within the texts of Christian chroniclers. Today, former Prussian lands and the Teutonic Order's state are sub-divided between four countries, and so in one very important sense the region remains something of a frontier. North-eastern Poland and south-western Lithuania continue to be dominated by lakes and forests, but much has changed in the landscape since the Iron Age, a process begun in earnest by German and Polish colonists following the Prussian Crusade.

Note

1 This chapter is co-authored by Alexander Brown.

2 www.ecologyofcrusading.com

8

THE END OF HOLY WAR

From the decline of a crusader state in the fifteenth century to constructing memories of medieval Prussia in the twentieth century

The King then orders the eternal fire maintained in Wilno (Vilnius) with daily supplies of fresh firewood to be extinguished, and the shrine from which a priest gives petitioners answers allegedly from the god of fire, to be demolished. The sacred groves are to be cut down, and the snakes kept in people's houses as tutelary idols are to be killed.

(Jan Długosz, *Annales*, AD 1387; Michael, 1997, pp. 348–349)

From holy war to secular war

The fifteenth century saw the complete transformation of the *Ordensstaat* and the demise of the Knights as a crusading institution. Unprecedented events in the last two decades of the fourteenth century had completely changed the geopolitics of the south-eastern Baltic. In 1382, Grand Duke Jogaila had made a pact with the Order granting the knights part of Samogitia and promising to accept Christianity. This truce was shortly broken after Witold, Jogaila's brother, invaded the Order's territory. Reprisals saw crusader forces reach as far as Vilnius, but they failed to take the Lithuanian capital. Jogaila and Witold were reconciled and launched a joint invasion against the Order's state. The stalemate began to dissolve a year later, when negotiations with Poland culminated in the baptism of Jogaila in 1386, at which point he adopted the name Władysław Jagiełło and accepted Catholicism on behalf of Lithuania. A few days later, Jagiełło married the Polish sovereign Jadwiga and was crowned King of Poland and Lithuania. The Polish chronicler Jan Długosz, cited above and writing many decades after the events, described the top-down suppression of public pre-Christian cult in Lithuania. Royal efforts at disseminating Catholic Christianity throughout the Grand Duchy were supported by the Franciscans. The resulting political union, creating one of the most powerful states in late medieval Europe, combined with the official conversion to Christianity, prompted an ideological crisis

within the Teutonic Order. Its ongoing conflict with Lithuania could no longer be justified as a holy war. Moreover, some of the basic principles of the Order's Rule were being compromised by gradual lifestyle changes, particularly poverty and obedience. By the end of the fourteenth century, the Grand Masters were adopting an increasing secular lifestyle, although at the same time they sought to reform the Order with little success. Recruiting from the German aristocracy was becoming increasingly difficult and internal conflicts were a regular problem. By the end of the fifteenth century, secularisation was, in many respects, inevitable (Jóźwiak, 2009, pp. 332–333).

However, at the end of the fourteenth century, the Order was still at the height of its power. Its immediate response to the union of Poland and Lithuania was to focus its political and military resources on the conquest of Samogitia (Tandecki, 2009). This region had been nominally under the political dominion of Lithuania, but had retained a strong sense of tribal independence. It had successfully resisted the military incursions of the Order's armies and its populations had retained their pre-Christian beliefs, although new expressions of ritual practice would appear in the territories governed by the Teutonic Order, perhaps as a result of prolonged exposure to Christian ideas (e.g. Svetikas, 2008). In contrast to Lithuania where Franciscans had been operating from the mid-fourteenth century following an invitation from the grand duke, the Samogitians were perceived as a more troublesome obstacle to the Christianisation of the eastern Baltic. After attacks and reprisals across the Nemunas continued during the last years of the fourteenth century, peace was finally achieved in 1403. Two years later, with the help of Jagiełło, the Order was able to finally conquer Samogitia following a brutal military campaign (Urban, 2006). But the situation had become critical. In 1409, a rebellion in Samogitia against the Order was supported by Witold who, in turn, could rely on his brother Jagiełło and the military might of the union. The uprising was suppressed, but under the leadership of Ulrich of Jungingen, Grand Master from 1407 following his brother's death, the Order went on the offensive against Poland. Its armies desolated the Dobrin Land and northern Kuyavia as well as Masovian territories. Subsequent negotiations focused on the sub-division of territory and revealed the Order's agenda to break up the Polish-Lithuanian union (Biskup, 2009, p. 234). The following year, Polish and Lithuanian forces, accompanied by a significant contingent of Tartars, crossed into the Order's territory. Anticipating a double attack across the Polish and Lithuanian borders, the Order had maintained a significant military presence in its easternmost castles, including Memel (Klaipėda) and Lötzen (Giżycko), whilst the main army gathered at Schwetz (Świecie). On 15 July, both sides met near the villages of Grünfelde (Grunwald) and Tannenberg (Stębark) in what became known as one of the most famous battles in European history – Grunwald for Poles, Tannenberg for Germans and Žalgiris for Lithuanians. The outcome was a catastrophe for the Order: the Grand Master and many high-ranking officials were killed and numerous more were taken prisoner.

Although the Polish–Lithuanian army subsequently failed to take Marienburg (Malbork) castle, they defeated the Order's forces a second time at the battle of Koronowo in September of the same year, which led to the Peace of Thorn (Toruń) in 1411. The truce was concerned with relatively minor territorial concessions and episodes of warfare continued until the Treaty of Melno in 1422. This fixed the eastern border of the Order's state (confirmed again in 1435 and modified slightly seven years later) with the River Elk as a major demarcation line until Lake Toczyłowo where the border with Masovia began, whilst the area between Rajgrod and Netta remained Lithuanian territory (Białuński, 2002, p. 10). The Knights also withdrew all claims to Lithuania and Samogitia. The war with Lithuania which had lasted over a century was over, but conflict with Poland continued and, as with the previous 'great war', assumed a central European dimension. In order to separate the Order from its supporters in the Holy Roman Empire, in 1433 the Polish invited a Czech Hussite army to travel through its lands and launch attacks on the western territories of the Order's state. The Dominican complex in Dirschau (Tczew) was destroyed during this incursion, and the Hussite army even reached – but failed to take – Danzig (Gdańsk) (Haftka & Jesionowski, 2003, p. 336). In the meantime, the Livonian branch of the Order involved itself in the civil war within Lithuania, which culminated in the battle of Wilkomierz (Pabaiskas) in 1435, where its forces suffered a heavy defeat. In a scenario reminiscent of Tannenberg, the Livonian Master was killed and many officials were captured.

The actual catalyst which disintegrated the Order's state was the Thirteen Years War, which began with uprisings led by the Prussian Confederation or Union in Danzig, Elbing (Elbląg), Thorn and Kulm (Chełmno) in 1454, and concluded with the Second Peace of Thorn in 1466. Under the terms of this treaty, Poland annexed around one-third of the Order's state, leaving eastern Prussia as a Polish fief under the control of the Grand Master, who had relocated his headquarters from Marienburg to Königsberg (Kaliningrad). Western Prussia became known as Royal Prussia and this political transition is widely perceived as heralding a golden age for Pomerania. In the latter decades of the fifteenth century, the Order concentrated its efforts on the colonisation process at the eastern frontier, creating new administrative districts and resulting in increased competition over border districts and their inhabitants between the Order's officials and the lord lieutenant of Samogitia (Rowell, 1999, pp. 190–191). However, vassalage to Poland was complicated by the Order's ties with the Holy Roman Empire and the papacy. This eventually prompted the last Grand Master Albert of Hohenzollern to demand the return of Prussian territories, which initiated the final conflict between Poland and the Order: the so-called Prussian War or *Reiterkrieg* which lasted from 1519–1521. Peace was only established when the Holy Roman Emperor intervened in the light of the Turkish invasion of Hungary and, four years later, Albert decided to secularise the Order, adopt Lutheranism and formally submit to the Polish king in Cracow. Albert's territories were rebranded as Ducal Prussia and the *Ordensstaat* as a political and cultural entity finally came to an end.

Archaeologically, there is no visibly unbroken occupation at major sites before properties passed under the control of the Polish Crown, for the destruction and reoccupation of castles, as well as settlements and towns, were relatively brief events. The attacks on the Order's castles in the major cities of the Prussian League were the direct consequence of shifts in political allegiance and, following its detonation, the castle complex in Thorn was subsequently abandoned. The end of the Order's state can be regarded on the one hand as the dissolution of a medieval world-view, characterised in Prussia by the peculiarities of a theocratic, crusader state. In fact, the conventual lifestyle and its associated ideology were increasingly compromised throughout the fifteenth century as the Order engaged in secular wars, became embroiled in Imperial politics and began to regularly employ mercenaries. Participation in international trade continued and cities such as Gdańsk flourished under Polish rule, although the decline of the Order weakened the Hanse's monopoly in the Baltic region (Biskup, 2009, p. 317). In the former territories of the Order ceded to Poland, the commandery system was suspended and reorganised under elderships (*starostwa*), which were subsequently introduced into Ducal Prussia. However, not everything changed, particularly in the countryside. The remnants of the Prussian population continued to maintain some form of identity in rural villages into the sixteenth and early-seventeenth centuries, as in Miłki and Konopki in Masuria (Karczewska *et al.*, 2005, pp. 58–59). This chapter is concerned with the century of the Order's decline, considering to what extent archaeologists can contribute to understanding the end of medieval, Catholic Prussia. It goes on to outline the reinvention of medieval Prussia in the modern era, which has had significant implications for archaeologists, as well as for general understanding of the crusading era and the character of the *Ordensstaat*.

The final era of castle building

The final phase of castle building in the early decades of the fifteenth century can be linked to two trends: the continuing development of the administration of the Teutonic Order's state, particularly within its eastern commanderies, and a strategic response to the military threats from Poland and Lithuania. In 1393, Konrad of Jungingen was elected Grand Master of the Teutonic Order. Often regarded as the last of the 'great Grand Masters' under whose reigns the *Ordenstaat* developed and expanded throughout the fourteenth century, Konrad emphasised his role as a sovereign through the use of heraldic decoration and the sponsorship of new residences (see also chapter 4). His brother Ulrich's initiation of the construction of a castle at Lyck (Elk), deep within the 'Great Wilderness', reflected increasing confidence in securing the fringes of the eastern commanderies. This was partly intended to strengthen the eastern frontier with Lithuania and also to develop the exploitation of natural resources in the locally abundant woods; the castle was referred to as a *Wildehaus*. The castle is first mentioned in 1398, but appears to have been rebuilt or finished in 1408,

with the first procurator mentioned in 1415 (Białuński, 2002, p. 76). The castle, like many of the smaller eastern Prussian castles, was significantly modified from the fifteenth century and converted into a prison in the nineteenth century. Recent excavations at the site in 2011 and 2012 revealed the earliest phase consisted of a residential-defensive tower situated on the southern edge of the island, subsequently incorporated into the larger brick building. The site was carefully chosen; situated on a small island between two lakes would have made it more easy to defend against large terrestrial armies. Despite the Order's confidence in developing the resources of its wooded borderland, security concerns remained important. In addition to the evident natural barrier encircling the site, the tower itself was also surrounded by a moat on three sides. By the eastern side of the island, the remains of a timber bridge and three sets of palisades were discovered, and the excavations revealed the island had been artificially shaped during the process of construction and the banks stabilised with timber posts. At present, the dates of these structures remain uncertain but may be clarified in the post-excavation process (Herman, pers. comm.) (Figure 8.1). The expansion of the building however points to a change in function, most likely related to a frontier outpost transforming into a centre for managing local woodland resources (Haftka, 1999, pp. 86–88). Excavations recovered significant quantities of ceramic, brick and animal bone fragments from late medieval and predominantly post-medieval contexts. The procurator's residence was eventually associated with a settlement that was granted town rights in 1425, although more intensive colonisation in the region did not occur until the sixteenth century. At the same time as the procuratorship at Lyck was stimulating settlement in the eastern borderland, administrative and particularly fiscal changes within the *Ordensstaat* prompted the gradual dissolution of smaller estate centres from the early-fifteenth century (Józwiak, 2009a, p. 137).

The additional security measures associated with the early building phases of the castle at Lyck can be situated within the general trend in upgrading fortifications within the Order's state. This took place in two phases, first in c.1370–1417 when existing outer walls and towers were heightened and additional concentric towers were added as at Bütow (Bytów) and Frauenburg (Frombork). Detached towers were sometimes joined to the castle with a shaft or connecting wall as at Barten (Barciany), Strasburg (Brodnica), Gollub (Golub) and Ragnit (Neman). Second, from c.1417 until the mid-fifteenth century, larger towers guarding the flanks were constructed, built in groups as at Marienburg (Malbork) and Frauenburg or as detached fortifications as at Heilsberg (Lidzbark Warminski) (Domańska, 1970). In Marienburg, the Bridge Gate, built between 1335 and 1341, was modified in the fifteenth century with the introduction of loop-holes with stone lintels, similar to the loop-holes in the defensive system of the castle (Domańska, 1972). Following the battle of Tannenberg and the unsuccessful siege of Marienburg, the Order constructed a large embankment (later named 'Plauen's embankment' after the commander and later Grand Master who ordered its construction) beyond the



(a)



(b)

FIGURE 8.1 Excavations at the castle at Elk (Lyck) in 2011: the main building which was converted into a prison (a), remains of the early timber palisade (b)

eastern wall of the outer bailey (Figure 8.2). Excavations in 2011 revealed that the embankment had resulted in the demolition of an earlier brick structure and was constructed in two phases, perhaps representing a break for winter. There were also subsequent constructions around the area of the new gate, involving a wooden bridge that was dated by dendrochronology to the middle years of the fifteenth century (Bobowski, 2011).

The Order's castles in the Kulmerland were poised for defence against the threat of Polish attack throughout the fifteenth century, although their effectiveness was variable and the region slipped from the Order's control following the successful uprising of the Prussian Confederation (Gancewski, 2001, p. 70). The main building phases of the borderland castle at Gollub took place in 1300–1330 and from 1422–1449. Firearms are only listed from 1410, although the castle appears to have been poorly defended. It was quickly captured by Polish–Lithuanian forces, only to suffer extensive structural damage in 1422 during the short-lived Gollub War. The fortifications of the adjacent town were also partly dismantled, particularly the large tower by the River Drwęca. The castle was subsequently restored, with work on the vaulting continuing until the mid-fifteenth century (Haftka, 1999, pp. 113–119). The moat was filled in and an earthen embankment heaped on top. A new moat was dug in the south side of the castle, which remained dry (Nowiński, 1970, pp. 93–94). In the seveneenth century, the structure was significantly modified and transformed into a



FIGURE 8.2 View from the south-west of 'Plauen's embankment' on the north-eastern side of Malbork (Marienburg) castle. The embankment was reinforced with a brick wall and bastions on its eastern side

palatial residence, with a series of larger windows inserted into the brick walls on all floors, decorative parapets crowning the upper wall and corner turrets. The castle would fall into ruin in the nineteenth century and restoration work only began from 1904, whilst excavations began in earnest from the 1950s with the aim of uncovering traces of early-medieval occupation at the site (Haftka, 1999, p. 118). The idea of earlier fortified buildings is maintained into the fifteenth century and, whilst residential elements such as the Grand Master's palace at Marienburg may be linked to the Order's increasing secularisation, noticeable modifications to the appearance of a number of castles in both Ducal and Polish-held Prussia only take place in the sixteenth and seventeenth centuries. Timber fortified structures continued to be built into the fifteenth century. At Pień, excavations by Dariusz Poliński of a multi-period site have revealed traces of a complex built as the residence of the Teutonic Order's procurator (site 1), formerly named Wallanlage. The builders had chosen a strategic point in the landscape: a mound overlooking a branch of the Vistula, which has subsequently been diverted. Excavations revealed the mound had been previously occupied from the ninth to twelfth century, but the stronghold had long been abandoned by the time the Order chose this site for one of their latest fortified residences. The procurator's complex at Pień represents clear evidence for the continued use of timber fortified structures into the fifteenth century, and the role of smaller residences in the reorganisation of the Order's territories. From 1414–1422, this is documented as the seat of the Order's procurator, and inventories indicate it contained a supply of firearms. Excavations focused on the mound in 2004–2007 and uncovered three corners of a rectangular building, most likely timber-framed, with dimensions estimated at $14.5 \times 11.5\text{m}$, representing the largest of its type in the Kulmerland. Several thousand artefacts have been recovered from the site, including ceramic vessels, roof tiles, stove tiles, brick fragments; crossbow bolts, knives, nails and buckles amongst a diverse range of ferrous and non-ferrous objects; glass vessels and a substantial quantity of animal bones. The main complex was protected by a dry moat and in the immediate vicinity of the mound were traces of early-medieval settlement, late-medieval and early-modern activity. Only a few years after its construction, the procurator's residence at Wallanlage is documented as being destroyed by its own garrison in 1422 during the Gollub War. However, the presence of two rows of deeply sunken oak posts, which could have typically functioned as stabilising structures, suggest the main residence may never have been finished. Ongoing investigations will invariably shed important light on the function of this short-lived but richly furnished complex (Poliński, 2007b; Poliński, pers. comm.).

New fortifications were also built in Pomerania within the context of hostilities with Poland-Lithuania. They included the castle in Ossiek (Osiek), situated on a small island (today a peninsula) near Lake Kałębie. Here, excavations by the Archaeological Museum in Gdańsk uncovered brick and stone foundations; only part of a wall built from field stones and brick protruded above the

surface. The fortification itself is quite late, dating to the end of the fourteenth/start of the fifteenth century and, like Wallanlage, it was built as a procurator's residence consisting of, in this instance, a single wing situated within an irregularly sided precinct adapted to the shape of the island. The complex was fitted with the usual suite of facilities associated with a procurator's residence – a chapel, kitchen, cellar, armoury, store, brewery and *Vorwerk*. The site guarded one of the routes linking the Order's state with the Empire and contributed to the management of local estates; an inventory from 1428 lists 78 cattle, 465 pigs and 397 sheep (Haftka, 1999, pp. 215–217). The castle came into Polish hands in 1466 and, after the Second Peace of Thorn, it became the centre of an eldership. It was expanded but dismantled in the late-eighteenth century and its bricks used in the construction of barracks in Starogard Gdański (Preußisch Stargard). In the 1930s, excavations uncovered the foundations of the castle with glazed floor tiles, the level of the original courtyard was discovered along with the earliest cut of the moat (Kochański, 2001, p. 462).

Traces of the war between the Polish Crown and the Order are evident at some sites. In Plemiętach, several eastern-style arrowheads were found embedded in the central tower, probably traces of an attack on the site by Tartars serving in the Polish army in 1414. Similar arrowheads were found at the stronghold in Nawrze-Bogusławkach (Kola, 2002, p. 160). At Dąbrówno, excavations in the town park revealed that a stronghold had been constructed in the first half of the thirteenth century in the form of a square (25 × 25m). In the northern part, archaeologists uncovered the remains of a brick building, most likely the residence of the voigt. This had been destroyed by a fire at the start of the fifteenth century, probably in 1410. In the mid-fifteenth century, a castle was constructed for the voigt with three wings enclosing a courtyard, later reworked into a Baroque residence before being largely destroyed in 1945. The structures and material culture of the Order in the fifteenth and early-sixteenth centuries are therefore characterised by responses to the ongoing military conflicts with Poland-Lithuania. The process of colonisation and management of the landscape is largely known from written sources, which tend to be increasingly detailed. For example, the *Vorwerk* adjacent to the procurator's residence at Lötzen, functioning in the fifteenth century, is unknown archaeologically, whilst an inventory from 1420 lists a relatively small number of livestock: 12 cows, three calves, 41 young and mature goats, 24 pigs and 21 piglets (Haftka, 1999, pp. 104–105).

The impact and aftermath of 1410

At the start of the fifteenth century, the Order was at the zenith of its power in the Baltic. Before 1410, there were around 700 knights in Prussia. After the battle at Tannenberg, this number was reduced to around 350 (Nowak, 1999, p. 84). In the 1430s, the highest number could be found in Marienburg (65) and Elbing (41), with as few as five in Mewe (Gniew) and three in Birgelau

(Bierzgłowie). Archaeologists are usually reluctant to place much significance on individual historical events, favouring the study of long-term cultural trends, and the immediate impact of the battle of Tannenberg on 15 July 1410 is intangible from the perspective of material culture. Nonetheless, the consequences for the Order were severe. The army of the Order led by Grand Master Ulrich of Jungingen met the combined Polish and Lithuanian force, led by Jagiełło. The events were retold in some detail – albeit retrospectively – by Jan Długosz, although the memory had been preserved in family histories, chronicles, stories and songs, and vivid reminders on display in the royal cathedral in Cracow included captured standards and the swords presented as an ironic and mocking gesture by the Order to Jagiełło before the battle. The Order's army was virtually annihilated, along with the core of its leadership. The most stringent supporters of the Order's state drawn from the urban elite would also suffer heavy losses. As the headquarters at Marienburg held out against the subsequent siege, this battle is more of a symbolic beginning of the end for the Order as a political power in Prussia, although the more lasting transformation in the *Ordensstaat* would come with the implementation of the Second Peace of Thorn after another half century of warfare. However, the poverty of the Order after 1410 is exemplified by the sale of horses – a defining feature of the Knights' military resources. Some of the brothers from Schlochau (Człuchów) sold their horses at Danzig after Tannenberg and the fall of the convent at Mewe (Biskup, 1998, p. 125). Following the war, as the economic structure of the Order shrank, production decreased and supplies in castle stores were significantly reduced, although imports were maintained (Gancewski, 2001, p. 31). In the 1450s, the Order was unable to pay its mercenaries who took over and sold some of its castles, most notably Marienburg.

The site of Tannenberg, referred to in Poland as Grunwald, represents the most famous and extensively investigated battlefield from the Teutonic Order's state (the other two relating to the Order in Poland are associated with the battles at Płowce in 1331 and Świecino (Schwetz) in 1462 (Wolski, 2008)). Archaeological observations in the area had been ongoing since the 1790s, when Friedrich Samuel Bock observed that human bones could be found in low-lying ground to the south of Stębark, most likely the remains of mass graves dug after the battle. The remains of a nearby Teutonic Order chapel were documented by Emil Schnippel (1910a, b) and there was an excavation in 1911 outside the church at Stębark with the aim of locating Polish knights buried after the battle as described by Jan Długosz (Hoffmann, 2009, p. 144). In 1827, earthworks associated with late medieval fortifications in the vicinity were documented by Johann Michael Guise. In the late-nineteenth and early-twentieth centuries, there were some small-scale excavations around Grunwald which documented a number of sites from various periods. The first excavations that took place from 1958 until 1960 coincided with the 550th anniversary of the battle, and focused on the area traditionally associated with the battlefield, around the seventeenth-century church at Stębark which may

have stood on the site of the medieval structure, as well as around Grunwald and Łódzgowo (Figure 8.3). Excavations in the vicinity of the chapel on the battlefield (site 1) uncovered significant quantities of bone, melted metal fragments, coins and military artefacts, most probably relating to the battle. The chapel appears to have functioned as a site of pilgrimage shortly after its construction in 1411 and excavations within uncovered two mass graves containing healthy, adult males with both healed and fatal weapon injuries evident on the skulls and long bones. These were predominantly from swords and axes and, to a lesser extent, from blunt weapons and projectiles; the evident healed wounds have been linked to the presence of veteran soldiers. One of the graves was truncated by the foundations of the chapel, suggesting these preceded the construction of the more permanent memorial. The chapel was not located in a particularly visible or accessible part of the battlefield, leading to suggestions it may have been built on the site of intense fighting where bodies of soldiers (along with horses) were simply buried where they fell, and perhaps even where the Grand Master himself was killed. Alternatively, and perhaps less likely, it could have been built in the location of the Order's camp. Within the chapel precinct, excavations revealed burnt human bone, also bearing weapon injuries and mixed with rubble and occasional examples of horse bone. These appear to have been re-deposited (Wolski, 2008, pp. 75, 79–81). Subsequent excavations in 1979–1980 and throughout the 1980s on the battlefield and at sites within the vicinity led by Andrzej Nadolski (1993) revealed more graves, crossbow bolts and arrow heads; in total 28 military artefacts were recovered during the decades of excavations, the majority of which came from the chapel or its vicinity (Wolski, 2008, p. 100; Hoffman, 2009, p. 150).

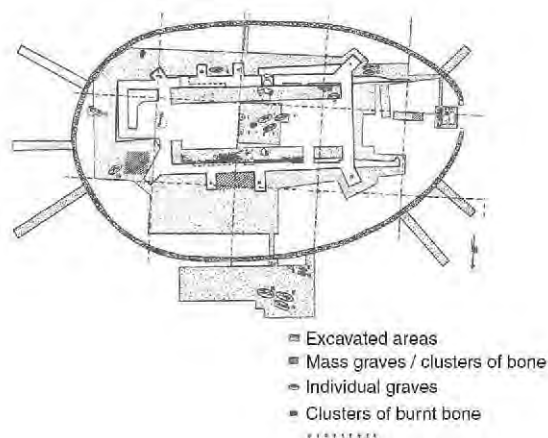


FIGURE 8.3 The excavations of the chapel (site 1) on the battlefield of Grunwald showing the location of individual graves, mass graves and deposits of burned bone (aft. Odoj, 1961/62 in Wolski, 2008)

Today, the battlefield represents one of the most important heritage sites in Poland (see also chapter 9). As with the battlefield assemblages from Visby (1361) and Towton (1461), osteoarchaeological analysis of the human remains recovered at Grunwald has shed important light on weapon use in the fifteenth century, compared to the very limited number of artefacts recovered at sites in the vicinity. Written sources shed more light on the changing composition of castle armouries. By the end of the fifteenth century, crossbows were becoming replaced by handheld firearms; inventories record only crossbows with cranequins (string winders). Firearms are documented in Prussia from the early-fifteenth century; hook-guns and matchlocks routinely feature in the inventories of the Order's castles and towns in the early-sixteenth century (Nowakowski, 1994, pp. 102–103). There is relatively little information on the Order's armour in the sixteenth century; exceptions include a ceremonial breastplate, probably belonging to Albert of Hohenzollern, made in South German workshops c.1510 with the Order's cross etched on the surface and bearing the letters GVDMTE (*Gratia Verbumque Domini Manet Tibi Eternum*) (Nowakowski, 1994, p. 72).

Over the course of the fifteenth century, the Polish Crown seized a number of castles which belonged to the Order. After an unsuccessful siege in 1410, Marienburg castle was eventually sold to the Polish king in 1457 by its mercenary garrison, although the town would not be secured until three years later. Few modifications were made within the complex until the sixteenth and seventeenth centuries, but ongoing excavations in the outer bailey have revealed how this area continued to be used for industrial processes. The Polish took possession of Brandenburg castle (Ushakovo) in 1454 and, only two years later, it was burned by the army from Danzig and, following another fire in 1520, the outer bailey was rebuilt. It was only in 1776 that the main parts of the castle were dismantled by order of Frederick the Great. The Thirteen Years War (1454–1466) would have major implications for the process of colonisation and would signal the end of the Order's occupation of castles in western Prussia. Settlement expansion would begin again immediately after the war (Białuński, 2002). Following the annexation of the western part of the Order's state, conventual life came to an end and castles were converted into residences, with the largest continuing in their role as administrative centres, although completely stripped of their earlier monastic character.

What about the continuation of conventual life in eastern Prussia before official secularisation, where the Order retained its territories? Königsberg and Memel remained under the control of the Order throughout the fifteenth century, although the former was a member of the Prussian Confederation. Unfortunately, relatively little is known of the material culture of the Sambian castles, including Königsberg, in the final decades of the Order's existence. Late Gothic-style polychrome tin-glazed stove tiles, typically associated with royal, aristocratic and monastic sites from the late-fifteenth to early-sixteenth century, were found in the ward just outside the refectory of the Livonian

branch of the Teutonic Order's castle at Fellin (Viljandi) in South Estonia. They contribute to an impression of interior opulence in the castles of the Order (Gaimster, 2002, p. 113), and this adoption of secular elite material culture is certainly evident in the Grand Master's court at Marienburg from the end of the fourteenth century (see also chapter 4).

Towns in fifteenth-century Prussia

The populations of the towns in the Teutonic Order's state had grown significantly over the course of the fourteenth century. Household waste in early-medieval Gdańsk had been swept onto the streets to be consumed by animals, whilst rubbish from the ducal citadel was disposed of elsewhere as suggested by limited amounts of refuse recovered at the site during excavations; the earliest surviving regulation concerning waste disposal is from 1460 (Paner, 2004b, p. 324). By the mid-fifteenth century, the town had over an estimated 20,000 people, including 1,100 registered craft workers, though the number is probably higher. The town was dominated by lower German inhabitants, whilst the Slavic element was represented largely by artisans, and the urban population in the associated region is estimated at around 30–35,000 (Paner, 2006, p. 433). In terms of material culture, there has been some discussion concerning the growing popularity of greyware in the latter half of the fourteenth and early-fifteenth centuries, and the changing ethnic composition of the town. This correlation is complicated, particularly in the context of an old urban centre such as Gdańsk which had accommodated German settlers before the coming of the Order, and which became increasingly multi-cultural, with the presence of a substantial community of English merchants by the start of the fifteenth century.

Change was characterised by heightened security concerns and the formation of the Prussian League, which resulted in organised uprisings against the Order. These took place in Thorn, Elbing, Kulm and Danzig, but also in some smaller towns; in Rastenburg (Kętrzyn) in 1454, the procurator was drowned by the townspeople (Soćko, 2005, p. 115). The small, coastal town of Tolkemit (Tolkmicko), better known for its nearby archaeology of earlier Prussian sites, saw the Order's castle destroyed by the townspeople. The Order was subsequently able to regain control over the town until it passed into Polish hands in 1466. Ermland, with its aspirations to political independence, was equally affected by the military activities in the middle decades of the fifteenth century. The town, castle and cathedral of Frauenburg saw multiple assaults in the fifteenth century: in 1414 by a Polish-Lithuanian army and in 1454, 1456, 1461 and 1462 by the Order's forces. The town itself was badly damaged during the Second World War and rebuilt in 1967–1973; the only intact part of the town defences is the 'sailing tower': a square brick structure dating to the fourteenth/fifteenth century, albeit restored in the 1970s. Before the uprisings and the division of the Order's state, the first half of the fifteenth century was marked

by the upgrading of town fortifications. After 1410, the inhabitants of Thorn focused their investment on arms, armour and the consolidation of the town's defences. The gatehouses were strengthened with barbicans in front of the Old Thorn Gate and the Kulm Gate. The walls were raised by 1.5m, still visible on the southern stretch of the Old Town. The council tried to control the organisation of defences more effectively, regulating construction work in the area by the walls; immediately after the war the walls and ditches were repaired. A barbican was constructed in front of the gate of St James – consisting of two concentric towers, protecting the entrance with a bridge. The Straight Gate was also reinforced in this way, and St Catherine's Gate had a low, square tower constructed. Churches continued to be built and town life regulated. Due to sanitary concerns, the council forbid pig sheds to be constructed within the town walls in 1405 and 1419 (Czacharowski, 1983, pp. 124–125). Thorn switched its allegiance from the Teutonic Order to the Polish Crown in 1454, bringing an end to one of the most important commanderies in Prussia. The castle was destroyed by the inhabitants and remained a ruin and rubbish dump until archaeological investigations began to remove the exploded debris. Some fragments of detonated wall have been left *in situ* (Figure 8.4).

From 1424, the Polish began constructing a brick castle on the other side of the Vistula at Dybów, consisting of a main northern residential building and a southern gatehouse with walls enclosing a courtyard, raised in the mid-fifteenth century. Occupied briefly by the Order in 1431, the castle functioned as the



FIGURE 8.4 Debris from the destroyed castle at Toruń (Thorn)

centre of royal administration until 1655 when it was partially destroyed and fell into ruin. Next to the castle a trading settlement quickly developed at Nieszawa. In 1460, at the request of Thorn – now a vassal of the crown – the settlement was dismantled and relocated 30km upstream. The area in the vicinity of the castle was the focus of excavations in 1999–2002 by Lidia Grzeszkiewicz-Kotłowska, with the aim of locating the traces of the fifteenth-century Jagiellonian colony. They revealed that the river had been displaced some distance from its earlier course, but the settlement could not be located, prompting suggestions it had been completely obliterated by hydrological modifications in the nineteenth century or had been incorrectly sited by historians. Towards the end of the first season of excavations, traces of the cellar of a fifteenth-century timber building were uncovered in one trench, which contained the burned remains of two chests. One was filled with ceramic vessels which had burst under the high temperature. After the fire, the charred debris had been covered over with a sand levelling layer, preserving 7,280 artefacts. The fire was linked to the Order's attack on Nieszawa in 1431 when the castle had been seized, and the chronological range of the material culture corresponded to the short-lived period of occupation: 1425–1431. Later excavations identified part of the church of St Nicholas and enabled its width to be reconstructed as 12m; the structure had been demolished in the nineteenth century. The associated cemetery, consisting of regularly laid out burials, was also uncovered, along with a single mass grave. On the basis of traces of building and streets identified during excavations, the total area of the settlement was estimated at 520 × 300m, roughly corresponding to the size of the Old Town of Thorn (Grzeszkiewicz-Kotłowska, 2005). This rare example of late medieval Polish colonisation remains to be explored in more detail in the future.

Opposition to the Order in Prussian towns was not unilateral. In Danzig during the Thirteen Years War, the Dominican monastery became the meeting place for those opposed to the Polish alliance, particularly merchants and artisans who had prospered under the Order's rule. Their plans to overthrow the town council by force and return Danzig to the Order were unsuccessful (Możejko *et al.*, 2006, p. 172). Nonetheless, the castle was dismantled following the Order's cessation of Pomerania. In 1629, a textile factory was built in the place of the former castle. Known as the Reform House, it was manned by those sentenced to enforced labour. Previous nationalist sentiment has led to the promotion of the Slavic phases of the town (i.e. the early-medieval and the post-medieval) as a 'golden age', with the Teutonic Order's rule framed as a truly stereotypical 'Middle Ages' characterised by oppressive lordship, verging on the tyrannical. Irrespective of the complicated political situation within the city, the foundations for the sixteenth century town were built on the reorganised late-fourteenth-century town. After 1410, the main centre of artistic production in Prussia became Danzig (Domasłowski, 2010, p. 130). At the same time, a number of changes are evident in the sixteenth century, stimulated by the changing political situation. For example goldsmithing, although

previously supported by the Order, flourished with numerous commissions from patricians, magnates and the Polish king (Paner, 2006, p. 433). Foundaries established from the sixteenth century in the town processed Swedish steel known as *osemund* (later known as 'Gdańsk iron') and, by the seventeenth century, there were 40 foundaries producing steel for export, with a number of related archaeological sites identified by the AZP (Paner, 1999, p. 394). In 1530, the office of town physician was created in the town; a doctor employed by the council to monitor the work of other physicians and issue licenses to practise; in 1548, a department of medicine was opened at the town's grammar school (Paner, 2004b, p. 332). In the New Town, in the late-sixteenth century the medieval foregate complex was converted into a prison that came to be known as the 'Torture House' consisting of prison cells and a torture chamber, the former uncovered through excavation (*ibid.*, p. 335). Amber remained a monopoly of the incoming Polish and Pomeranian elite. The family of Paweł Juski was granted rights by Duke Albrecht of Pomerania in 1453 to the amber harvest from the duchy, and the family maintained a monopoly on the supply of amber in Danzig for the next century (Paner, 1999, p. 391).

The success of the Prussian Confederation would herald a new phase of building and urban life which is beyond the remit of this book (for a summary see Cackowski, 1983). The construction of ramparts in the mid-sixteenth century in Elbing was followed by changes in the town's architecture; with the introduction and mass proliferation of new 'Renaissance' forms from the Low Countries (Nawrońska, 1999, p. 379). This is also evident in changes in town morphology; at Elbing, the Old and New Towns were united, and its suburbs developed significantly beyond the walls to include more housing alongside industry (Nawrońska, 2004, p. 320). The best-preserved water pipeline found in Gdańsk measuring nearly 100m in length is dated to the mid-sixteenth to seventeenth century (Paner, 2004b, p. 323). The gradual disintegration of the Order's Rule did not affect the towns where artistic culture continued to flourish into the sixteenth century, particularly in Elbing, Danzig and Thorn. In Marienburg, a rare example of a cupboard for storing liturgical vestments from the church of St John the Baptist can be dated to the third quarter of the fifteenth century. A more elaborate example produced at the same time was installed in the church of St Nicholas in Danzig. Furniture produced during this time was very much influenced by Flemish styles, but also attests to the continuation of craft activities despite the wars between the Order and Poland (Butryn, 2010). Nonetheless, following the shrinkage of the Order's state, Thorn lost its leading position in the Prussian Hanseatic network and its major trading partners became Kuyavia and Masovia (Czacharowski, 1983, p. 111). Thorn, along with Elbing, Braunsberg (Braniewo) and Danzig, all applied to the Polish Crown for the right to mint. With the incorporation of western Prussia into the Kingdom of Poland, Casimir IV (Jagiellończyk) granted the right to mint to Thorn, Danzig, Elbing and Königsberg. The coins had to carry the king's arms and name and this resulted in the production of double-sided coins the size

of schillings. However, a powerful sense of civic independence remained and, when the town was besieged in 1577 by the Polish army of Stephen Bathory, the earlier Polish coins were replaced by an image of Christ with the inscription '*Defende nos Christe/Salvator*', made from melted down silverwear from the town's churches (Paner, 2004b, p. 337).

The sixteenth and seventeenth centuries are often referred to as the 'golden age' of the Prussian coastal town because of the range and quantity of artefacts imported from all over Europe, indicative of extensive trade and high mass consumption of luxury items. The fifteenth and sixteenth centuries saw the development of new stove tiles which have been regularly recovered from excavations in the castles and towns of Prussia. There were shifts in markets; wares from Siegburg and Lower Saxony were replaced by products from Cologne and Frechen from the start of the sixteenth century, and new forms appeared such as cobalt glazed jugs produced in the Westerwald region, along with Dutch pipes and pewter table utensils from the Netherlands and England (Nawrońska, 1999, pp. 379–380). In Danzig, imported Dutch pottery increasingly appears from the fifteenth century and occurs in significant quantities in the sixteenth and seventeenth centuries, along with decorative, painted German wares (Paner, 1999, p. 392). The wealth of urban markets grew and changed the face of Prussian towns and their hinterlands. Elbing's estates increased dramatically in virtually every direction, particularly to the east and south of the town in the sixteenth century (Nawrońska, 2008, p. 525, Figure 22). From an archaeological perspective, the relationships between towns and their rural hinterlands in the late-fifteenth and sixteenth centuries remain unclear, although the renewed process of colonisation and settlement expansion must be situated within the context of existing towns and administrative centres. More importantly, the destruction of the Order's castles and the introduction of royal officials had dramatic implications for civic administration and the sponsorship of urban markets.

Reformation and the end of medieval Prussia

In 1525, the dissolution of the Teutonic Order's Prussian state was replaced with a duchy, owing allegiance to the Polish Crown. Albert of Hohenzollern had discussions with Luther in 1523 and 1524, which prompted him to secularise the Order's remaining territories in Prussia. As with the earlier dissemination of Catholicism throughout Prussia, Lutheranism was adopted quickly in the towns with the acceptance and leadership of urban elites, and more slowly in rural areas, particularly in the borderlands with Lithuania. Ducal territory was sub-divided into three administrative regions: Sambia, Lower Prussia (Natangia) and Upper Prussia, in turn split into elderships. The structure of the ducal retinues also changed. There were no great knightly families in Prussia until the later decades of the fifteenth century (Nowak, 1999, p. 82), and the Junker class which came to define the Prussian military elite in the nineteenth century replaced the

knight-brothers of the *Ordensstaat* during this formative period. Although the ethnic map of Prussia began to change in the late-fifteenth century with Polish and Lithuanian colonisation, this did not result in ethnically based segregation or animosity. Loyalty continued to be defined by locality rather than language and Lithuanians settled within the Order's territory, alongside Curonians, Samogitians, Prussians and Germans, maintaining their allegiance to the Duke of Prussia (Rowell, 1999, p. 191). More problematic was the public relationship between ducal Prussia and Poland-Lithuania, as evidenced by regular trade embargoes with clear political agendas (ibid., p. 189). Trade between Livonia and Prussia still had to go through ducal territory, and the toll house at Palanga levied duties on luxury goods, foodstuffs and forest products. In eastern Prussia, the exploitation of woodland resources began in earnest at this time with the clear demarcation of forest ownership along with rights for cutting timber and hunting, alongside records of poaching (ibid., p. 187), as suggested by written sources and palaeobotanical studies from this region (see also chapter 7).

Following the end of hostilities and changes in the frontier, peripheral urban centres such as Memel were able to flourish, and the post-medieval period is seen as a time of expansion. The cessation of hostilities in western Lithuania enabled Memel to develop its infrastructure. Following the expansion of the Order's castle, the adjacent medieval town was relocated at the start of the sixteenth century to the current location of the Old Town, which already had evidence of suburban economic activity from the early-fifteenth to sixteenth century. Significant hydrological modifications included the redirection of the River Danė to form a new defensive ditch around the urban area situated on higher ground, with low-lying wetlands to the north-west of the town being slowly reclaimed and built up. The number of bridges doubled by the seventeenth century (Žulkus, 2004), and excavations in the Old Town indicated that new material culture was being introduced already in the fifteenth century, such as laminated tiles which continued to be used by wealthy residents into the seventeenth century, along with imported riveted knives from Lübeck, plates from the Netherlands, Holland and North Germany and a range of artefacts from various Baltic towns. Trade continued to be extremely important to the prosperity of the town, and it is clear that Memel was fully integrated into the early modern commercial networks in northern Europe. Architectural styles changed slowly, with earlier timber building traditions continuing into the sixteenth century as suggested by excavations in the vicinity of Kurpių Street (Masiulienė, 2009; Žulkus, 2002b). The castles of eastern Prussia cease to function as convents and the residences of procurators, and several were remodelled or restored following damage sustained during conflicts in the fifteenth and early-sixteenth centuries. At Lötzen, the procurator was replaced by a *starosta* following the secularisation of the Order. The castle had been damaged and restored in the fifteenth century, and was destroyed again in 1520 when the garrison abandoned the site. Renovations in 1560 included the addition of a 'Renaissance' facade to the main building in the complex and, in 1614, this was

converted into a hunting lodge. Four, small wings with residential and service functions were added, although these were subsequently destroyed by a fire (Haftka, 1999, p. 104). No archaeological investigations were conducted during the conversion of the castle precinct into a hotel, and so the chronology of construction remains obscure and dependent on written sources and architectural studies of the surviving residential building (Figure 8.5). The Order's castle at Mohrungen (Morąg) in eastern Prussia became the centre of an eldership in 1525. The complex was modified under the direction of the ducal architect Blesius Bewart resulting in the addition of two or three wings with three, tall corner towers, forming a spiral around the central courtyard (Figure 8.6). The whole structure was plastered over. Within, parts of the timber ceiling painted in polychrome dating to the mid-sixteenth-century phase of restoration were uncovered during modern conservation work. The site was abandoned at the start of the seventeenth century with the construction of a new palace in the town. The castle was slowly dismantled and of the original late-medieval structure only the heavily modified north-western wing with its gate has survived, as well as a cellar under the eastern wing (ibid., p. 189). Archaeological investigations from 2002 were conducted alongside restoration aimed at preparing the site for a renewed cultural or commercial function.



FIGURE 8.5 The castle at Lötzen (Gizycko) in the 1920s. View of the eastern side from the canal separating the castle complex from the town. With the development of the modern hotel this part of the castle has been completely rebuilt, and the main building with the Renaissance facade is the only surviving part of the original complex, albeit heavily modified (source: <http://www.zeno.org> – Zenodot Verlagsgesellschaft mbH)

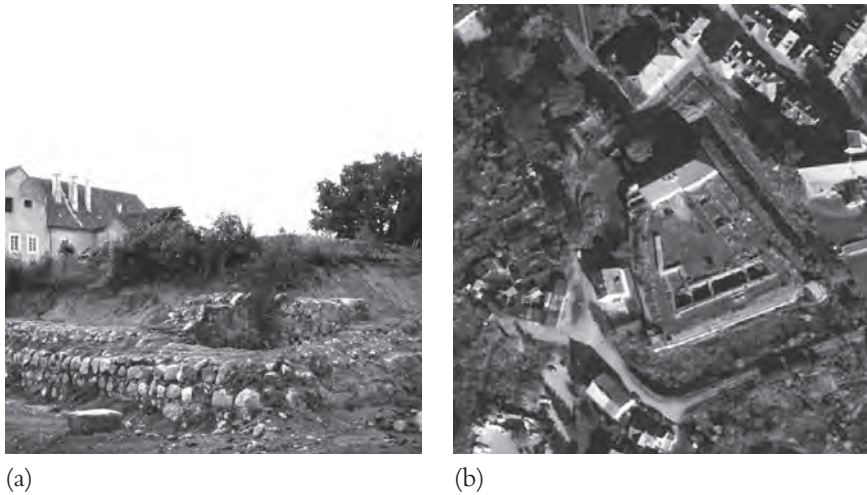


FIGURE 8.6 The excavated remains of the castle at Morąg (Mohrungen) (a) (source: www.zamki.pl), including an aerial view of the plan of the castle (b) (source: Google)

The impact of the Reformation in Prussia is most visible in religious buildings and in the dissolution of monasteries. In Danzig, numerous objects linked to saints' cults were thrown into latrines in the sixteenth century (Paner, 2004b, p. 325). It was during the Reformation that the first major modifications to the decoration of churches began, such as limewashing the paintings in the cathedral of Königsberg and other chapels in eastern Prussia (Paravicini, 1989, p. 342). The proliferation of tiles moulded with woodcut-based representations of the leaders of the Reformation has a wide archaeological distribution, reflecting the new religious and political affiliations of Baltic mercantile communities (Gaimster, 2002, p. 114). But at the same time, the ducal court in Königsberg was typical of other European centres where culture was promoted by wealthy patrons. This included astrology and alchemy and, in 2005, the discovery of a small box during excavations in Kaliningrad containing 11 artefacts decorated with Greek, Latin and Hebrew inscriptions, including representations of hybrid forms, has been linked to the more esoteric activities of the court in the sixteenth century. The eastern border of the duchy had Catholic churches on the Lithuanian side and Lutheran churches on the Prussian side, but this did not result in religious hostilities between the resident populations or people moving across the permeable boundary. Moreover, Samogitians retained pre-Christian practices with no attempt to create a practical ecclesiastical infrastructure following their incorporation into the Order's state. Only 19 churches were founded there in the fifteenth century and 44 in the first half of the sixteenth century (Rowell, 1999, p. 195).

To conclude, in 1525, the secularisation of the Teutonic Order in Prussia marked the official end of the institution as a military order engaged in crusading with direct allegiance to the papacy, even though the spirit of holy war had been replaced by secular tendencies. The Reformation is often used by historians and archaeologists as a convenient cultural hiatus separating the medieval and modern worlds, or at least the end of a society dominated by Catholic institutions and a Catholic world-view. In fact, there are a number of landmark events that contribute to the gradual disintegration of the Order's state. The first is the impact of the Battle of Tannenberg in 1410. This is followed by the Second Peace of Thorn in 1466 which results in the partition of the *Ordensstaat* and the annexation of western Prussia by the Kingdom of Poland. The final phase consists of the decades leading up to the introduction of Lutheranism in Ducal Prussia and eventual severance from Rome. In terms of material culture, aside from the proliferation of new forms of ceramics, liturgical art and metalwork, the first half of the fifteenth century sees the upgrading of many of the Order's castles as a response to the increased use of artillery. This is often regarded as the final phase of castle construction, although given post-medieval damage, building conversion and restoration, phases of rebuilding in the fifteenth and sixteenth century are often only evident from written sources.

New sites being constructed in the early-fifteenth century (such as at Ossiek) point to the continued importance of security associated with administrative centres, and the incorporation of spaces essential for the monastic lifestyle of the Order's members, particularly chapels. The most important centre of the reduced *Ordensstaat* was Königsberg, and ongoing excavations in Kaliningrad may shed important light on the final phase of theocratic Prussia. The extent to which the crusading ideology of the Order persisted into the fifteenth century remains a matter of debate. The gradual disintegration of this ideology, indeed often described as a 'crisis' within the Order, is often seen as being prompted by the Christianisation of Lithuania and the gradual secularisation of the Knights' hierarchy. Some historians, such as William Urban, have gone further and separated the crusading era from the period of sovereignty following the annexation of Pomerania. However, it is clear that core elements of the Order's world-view, linked with its crusading ethos, persisted. The strategic deployment of Marian imagery and symbolism during the wars with Poland-Lithuania in the fifteenth century suggests the endurance or rekindling of an earlier 'medieval' ideology. It implies that even in the North European world where the military orders were effectively redundant, such imagery remained extremely powerful (Dygo, 1989). Furthermore, daily life in the Order's surviving convents continued to be structured around a monastic routine in the early-fifteenth century, or at least aspired to this. After the Order was officially converted into a secular institution, the old emblem of the black cross on a white mantle was replaced by a black eagle with a gold crown around its neck and bearing the letter 'S'. The eagle, which had already featured on the arms of the Grand Master, simultaneously expressed earlier links with the Holy Roman

Empire and the redefined allegiance to the Polish Crown. In terms of material culture such as architecture and imported artefacts, the remnants of the Order's state were certainly not isolated but fully integrated into European commercial and cultural networks.

Later architectural restorations sought to restore the 'medieval' appearance of the Teutonic Order's castles, promoting a distinct neo-gothic architectural phenomenon in German Prussia and one that is reinforced in modern Poland. The restorations have largely, or completely, obscured the sixteenth- to eighteenth-century use of these sites, which in Poland have attracted significant interest from archaeologists insofar as they relate to a royal and independent Polish past. Excavations of the Order's sites typically reveal a significant amount of post-medieval archaeology in their upper strata; in some cases post-medieval occupation has obliterated much of the earlier, medieval archaeological contexts or resulted in problematic taphonomy that makes dating extremely difficult. Moreover, the very association with a German past makes the restoration and use of the monuments of medieval Prussia a sensitive political and cultural issue in the present.

Contested heritage: constructing memories of medieval Prussia

The history of the Duchy of Prussia between secularisation in 1525 and the modern day is complicated, although in abbreviated form it can be defined by a series of major events: first, the Swedish occupation of Poland, often referred to as the 'deluge' (*Potop*); second, the union with Brandenburg resulting in the establishment of a Prussian monarchy in 1701, although the two regions would only be physically connected following the partition of Poland in 1772; third, French occupation and partition under Napoleon; fourth, territorial expansion with the German Confederation and the subsequent unification of Germany, when Prussia became the largest state in the Weimar Republic split by the Polish Corridor; the Third Reich which heightened earlier trends in emphasising medieval German culture, and finally the reconfiguration of Baltic geopolitics following the Second World War which included the eventual dissolution of the Soviet Union. Today, former Prussian tribal territories and the Teutonic Order's state are split between Poland, the Russian Kaliningrad Oblast and Lithuania. Interest in the cultural value of historical monuments in Prussia – particularly the Teutonic Order's castles – was already evident in the seventeenth century, and castle visits became popular in the eighteenth century, perhaps even accompanied by guides (Kochański, 2001, p. 460). Between the sixteenth and mid-eighteenth centuries, the Order's former castles were not significantly modified and, during this time, they functioned as administrative centres such as courts or military bases. In the late-eighteenth and early-nineteenth centuries, many were deliberately demolished or partly dismantled. A sustained reaction against demolition and degradation, followed

by serious conservation work, only began in the late-nineteenth century. This phase of restoration took place within the broader context of the European Gothic revival and, in Prussia, this was characterised by the emulation of late medieval *Backsteingotik*, particularly the militaristic architecture of the Teutonic Order's buildings. Here the term Prussia refers to *Ostpreußen* or East Prussia, the core of the former Order's state. The Teutonic Order had maintained links with the Holy Roman Empire although there was no sense of a unified, shared German consciousness in the Middle Ages. This would only develop over the course of the nineteenth century, and the union of Prussia with Brandenburg and ultimately with modern Germany enabled nationalist thought to link the spectacular heritage of the Teutonic Order with normative medieval values associated with German national unity (Ortenberg, 2006, pp. 94–95). The material culture of Hanseatic cities, or more broadly brick buildings constructed across the Baltic region in the fourteenth and fifteenth centuries, was mirrored in the visual unity of the *Backsteingotik* revival.

Reviving the Teutonic Order's monuments in the neo-gothic era

Neo-gothic architecture mimicking the brick castles of the Teutonic Order expressed a deliberate continuity between the perceived medieval and the nineteenth-century 'German' past. A nationalist agenda was therefore visually created around the monuments and historical towns of the former *Ordensstaat*. Neo-gothic architecture in Prussia was influenced by architectural schools in Berlin, associated with figures such as Friedrich August Stüler and by inspiration drawn from local monuments, particularly castles and churches. The restoration work at the great castle of Marienburg exemplified a trend that swept through Prussia, and here the most important figures associated with the neo-gothic revival and early conservation movement were Bernhard Schmid (1872–1947), Conrad Steinbrecht (1849–1923) and Karl Heinz Clasen (1893–1979). Their work laid the foundations for systematic castle research in Prussia (Kajzer & Nowakowski, 2001, p. 449). In Danzig, the Berlin architect August Menken (1858–1903) built churches such as St Francis', whilst Karl Weber (1870–1915) designed the evangelical church in Oliwa and restored medieval monuments. Indeed, it was here that Gdańsk's gothic architecture was most influential in the design of neo-gothic buildings (Groth-Kubicka, 2004). No single building or structure was the same, and there is no evidence for a generic template. Individual building programmes depended on funding and their shapes were also influenced by the configuration of the local topography.

The castle at Marienburg is one of the most interesting case studies of a contested space (Figure 8.7). Following in the spirit of Conrad Steinbrecht's era of restoration, it preserves and exhibits the castle primarily as the former headquarters of the Teutonic Order. The castle was sold by mercenaries to the Polish Crown in 1457, at which point it began to function as a royal residence, a stopping point on the way to Prussia. Stephen Bathory used the castle



FIGURE 8.7 Three views of the chapel of St Anne showing nineteenth-century restoration and decoration (1895; 1899), followed by destruction and post-war reconstruction (1958) (Kilarski, 2007, pp. 74, 109, 144)

as his base between 1577 and 1588 when he was waging war against Danzig, and the former Grand Master's palace underwent modification *c.*1600 under Sigismund III Vasa (Pospieszny, 1991, p. 5). The castle lost its significance after the Swedish Wars of the seventeenth century and later became a base for the Prussian military, formerly handed over in 1772. At this point, the castle was adapted as a military barracks, although interest in the castle's architecture was already evident in the last decade of the eighteenth century when a visual inventory of the buildings was drawn up by Friedrich Frick, published as an album of drawings in 1799. The Prussian military occupation saw the rebuilding of the eastern and northern wings of the middle castle at the beginning of the nineteenth century; the Grand Master's palace was also affected with the destruction of vaulting in the eastern side and parts of the elevation. By royal decree, so-called 'destructive' modifications of the castle were halted in 1804, at which point the castle complex was perceived as an important historical monument and the era of restoration began. The first phase of active restoration would commence in 1817 with the clearing and cleaning of the Grand Master's palace and Great Refectory in the middle castle, aimed at removing all post-medieval debris. Restoration included a programme of extensive redecoration of the castle interiors. Between 1855 and 1856, a series of idealised portraits of eight Grand Masters and two Prussian masters were added to the north side of the summer refectory in the Grand Master's palace. In 1997, works in the western corridor of the east wing uncovered a set of seven wall paintings from the late-nineteenth century, illustrating scenes from the Book of Revelations, including St John beholding the rider on the white horse, the Archangel Michael slaying the Devil in the form a dragon and the Whore of Babylon. The artist responsible for this neo-gothic imagining had drawn on medieval sources for stylising the scenes, and had painted over the barely visible remains of medieval paintings which once decorated the walls of the corridor (Rząd, 2001). The nineteenth-century restorations at Marienburg were accompanied by excavations, and interesting findings were noted down although there was no systematic documentation.

Restoration work which involved imaginative rebuilding of historical monuments was paralleled by the construction of new structures inspired by medieval Prussian architecture. This included bridges built in 1845–1858 crossing the Vistula at Dirschau and the Nogat at Marienburg. Virtually nothing survives of the latter, whilst the former's piers and crenellated towers remain. The western portal of the bridge at Dirschau was flanked by a figure of the architect and the smith bearing a hammer and metal sheets. The eastern portal of the bridge had figures of Teutonic Knights in long coats with crosses, holding drawings and a map. There were also two sets of reliefs, one showing the opening of the bridge by King Frederick Wilhelm IV and the other showing the Christianisation of the Prussians under the reign of Grand Master Winrich of Kniprode. His figure dominated the relief, mounted on a horse in the centre of the composition, and alongside were a member of the Order

holding open a book to a man and boy, the Sambian Bishop Bartholomew and the Lithuanian Prince Kiejstut with bound wrists. Both of these reliefs were destroyed in 1925. The bridge at Marienburg, slightly different in style with square rather than circular towers, contained heraldic emblems and central figures above the portals; in the east Albert of Hohenzollern who represented the transition from the *Ordensstaat* to Ducal Prussia, and in the west Hermann of Salza, who had first brought the Order to the Kulmerland and initiated the official Crusade against the Prussian tribes (Wołodźko, 2004, pp. 86, 90). Gothic revival architecture continued to be built in the early decades of the twentieth century. At Hohenstein (Pszczółki) in Pomerania, the earlier station building was replaced in 1907 by a brick neo-gothic structure decorated with shields which has survived to this day. A brick church in the neo-gothic brick style with stepped gables was built in the town as late as 1931. Other station buildings designed in the neo-gothic style included Simonsdorf (Szymankowo), Strasburg and Kulm. The use of brick became such a distinctive element of nineteenth-century Prussian identity that its introduction into the southern, Catholic Rhineland at this time can be linked with changes in the political situation that saw an emphasis on cultural and religious unity with Prussia (Custodis, 2002).

The neo-gothic revival in Prussia is important for the medieval archaeology of the region for two reasons. First, reinvention, restoration, conservation and early archaeological work at the most important castles and churches went hand in hand. Second, it was paralleled by detailed scholarly studies of the Prussian Crusade and the Order's state, coloured by nationalist agendas (Urban, 2000, p. 381). Prussia was conceptualised as the battleground between Germans and Slavs, fighting to recover land that each had occupied at some point. This was the dominant view of eastern European history until the later decades of the twentieth century. Heinrich von Treitschke's *Das Deutsche Ordensland Preußen* (1862) would be matched by Eistenstein's *Alexander Nevsky*; both exemplified national hatred using the past, and specifically the Teutonic Knights. During the Nazi era, Hitler saw the Teutonic Knights as role-models of the German youth, and made several of their castles into training centres for the *Hitlerjugend*. Both Germans and Poles generally accepted this comparison, and the association between the Teutonic Order and the Nazis was widely illustrated in post-war victory cartoons; the fall of Berlin and the victory at Grunwald were compared. Indeed, the different emphasis on teaching aspects of the Teutonic Order between post-war Polish and German schools were the subjects of UNESCO meetings in the 1970s (*ibid.*, pp. 442–443). The *Drang nach Osten* was intensively studied by German historians and ultimately incorporated into political ambitions. Konstanzer Arbeitskreis and his research group organised a re-examination of the subject in the early 1970s and again in 2003, focusing on eastwards migration into Poland (Wünsch, 2008). In recent years, German historians have been particularly interested in the role of the Church and saint's cults in medieval Poland and, in the case of the Order's territories,

political, agricultural and social structures, whilst architectural and art historians have been actively publishing on the buildings of medieval Prussia (see also chapter 1). Nonetheless, the Second World War changed the geopolitics of the southern and eastern Baltic region, resulting in a change of ownership and responsibility for managing Prussian heritage. Whilst the shadow of nationalist historiography and the neo-gothic revival remains attached to the medieval monuments of Prussia, especially the castles of the Teutonic Order, both Polish and Russian archaeologists make extensive use of earlier German scholarship. In recent years, German scholars have been increasingly involved in documenting and studying the material culture of former East Prussia, particularly in collaboration with archaeologists in Kaliningrad.

Destruction, restoration and reconstruction in the twentieth century

The two world wars, particularly the second, destroyed several of the historic centres of the medieval Prussian towns; Marienburg, Danzig, Elbing and Memel were gutted, much of Königsberg was reduced to rubble, whilst Thorn, Allenstein and Kulm remained remarkably intact, although also saw post-war restoration. Many of the smaller medieval towns of Prussia have lost most if not all of their medieval fabric, in some cases the internal road plan is all that has survived, as at Działdowo (Soldau). The Soviet era saw rapid urban renewal accompanied by sustained programmes of rescue excavation and slowly the medieval fabric of the Baltic Hanseatic towns was uncovered beneath the rubble of more recent centuries. One of the most important programmes of conservation took place at Malbork (Marienburg) and continues into the present day (Kilarski, 2007). Following Polish independence and the dissolution of the Soviet Union, the red brick castles of North Poland have been recognised as invaluable resources for the local economy. As a result, the sites associated with the crusading era in Prussia, not only castles but Prussian and Slavic strongholds, towns, churches and villages, are becoming increasingly embedded within the tourist trails of North Poland. In 2000, Robert Spyek published a two-part 'historical-tourism guidebook' on the castles and fortified sites of the Teutonic Order's state, which included descriptions of what fabric had survived and how to access each site. Twelve castles formerly belonging to the Order, bishops and Prussian chapters in modern Poland have been included in a 'Gothic castles route' (*Szlak Zamków Gotyckich*). Some, such as Malbork, continue to attract significant foreign investment for conservation, whilst others are decaying ruins and plans to improve visitor facilities for castles such as Radzyń Chełmiński will take more extensive funding to realise. Maria Dąbrowska from the Polish Academy of Sciences in Warsaw, collaborating with the castle museum in Malbork, has been excavating the outer bailey of the complex for over a decade, partly with the aim of uncovering the early phase relating to the Teutonic Order, but equally importantly highlighting the royal Polish and subsequent phases of occupation. Excavations are followed by

redevelopment and consolidation of the castle grounds, most recently on the eastern side of the outer bailey.

Where castles are ruined, additional displays feature as tourist attractions. Models of castles created by local enthusiasts are often sponsored by local government bodies. In Prabuty for example, a miniature reconstruction of the bishop's castle was made by Włodzimierz Wiśniewski for display outside the ruins. The sculptor also made two smaller replicas of the castle and Old Town which are on public display. In other cases, new or restored features are deliberately created with the aim of attracting more tourists. The town well in Brodnica was rebuilt in the market and there are similar plans for the Old Town square in Toruń. In a number of cases, castle buildings have passed into private ownership, with mixed results. Some of the smaller castles have been the subject of sales negotiations, as in the case of Gniew in 2010 which resulted in controversy over the finances surrounding the site's purchase and refurbishment. The Order's castle at Giżycko is one of several to have been converted into a luxury hotel. The castle at Ryn (Rhein) was completely renovated in the process of conversion into a hotel, the former hospital in the outer bailey of Malbork castle and the southern wing of the former procurator's castle in Bytów (Bütow) were converted into hotels and, most recently, at Lidzbark Warmiński a hotel was opened in the southern outer bailey of the castle. The dilapidated and inaccessible ruins of the castle at Elk were recently purchased by Piotr Basiewicz with the aim of transforming the heavily modified structure into a luxury hotel. In 2011–2012, this plan enabled archaeologists to excavate many parts of the site and shed new light on its early development (see above), in contrast to the development at Giżycko. The ruins of Pokrzywno castle (Engelsburg) are today privately owned, with several buildings still visible. Much of the site is overgrown and elements of the surviving structure are in the process of being weathered and broken apart by vegetation (Figure 8.8). The future of the site is uncertain. Better preserved castles, as at Radzyń Chełmiński, Kwidzyn, Kętrzyn, Frombork, Olsztyn (Allenstein) and Lidzbark Warmiński, have been converted into museums of national importance, and the castle complex at Malbork is recognised as being of international importance by virtue of its UNESCO status along with the Old Town of Toruń.

All of these have been rebuilt and conserved at various points in the past and, given their revised architectural character, they are generally presented to the public as 'gothic' (in other words, medieval) castles. The remains of the castle in Elbląg are being used as the city museum, but there is currently no move towards exhibiting the castle as a medieval monument. Many other castles lie as overgrown ruins which are nominally protected but not actively conserved, such as Lipienek (Leipe or Lippinken). The remains of Grudziądz (Graudenz) were uncovered not only with the aim of understanding the development of the castle but to conserve and exhibit the structures to the public. This was dependent on funding and affirmative action from the local government, which failed to materialise. As a result, the physical integrity of the exposed structure is



(a)



(b)



(c)

FIGURE 8.8 Part of the outer bailey buildings at Pokrzywno (Engelsburg) (a) that are vulnerable to the effects of weathering and damage from vegetation; the surviving walls of Lipienek (b) and Veseloe (Balga) (c) are also being affected by dense vegetation growth (last image by B. Waldmann)

currently under threat with no possibility of a solution in the immediate future. Similar plans for the restoration of castle ruins along with the development of a museum and conference centre have been proposed for the Order's castle at Dzierzgoń (Christburg) at an estimated cost of eight million złoty. The future of the monuments of medieval Prussia in modern Poland invariably represents a compromise between private commercial and public heritage interests. In western Lithuania, the ruins of the castle at Klaipėda function as a museum which references the Order and the role of the German population in the development of the town, and includes structures exposed during recent archaeological excavations which have subsequently been conserved.

The memories of medieval Prussia are also re-contextualised around the memorialisation of individual historical events and personages. For example, the Lizard Union formed from the nobility of the Kulmerland in 1397 to covertly transfer power from the Teutonic Order to Poland is commemorated with a plaque dedicated to its founder Nicholas of Ryńsk, in the village of Ryńsk. Executed by the Order following Grunwald, Nicholas has been perceived as something of a national hero. Nearby, in the village of Stary Toruń stands a commemorative stone marking the 775th anniversary of the founding of the town. Chełmno celebrated its foundation in 2008 by reproducing its medieval pfenning or denar, with the explicit aim of promoting the town. The coin represented the town arms on one side and the parish church on the reverse. The town itself has preserved some distinctive elements of its historical fabric, including 2km of town wall with towers and gates. Both Chełmno and Gniew have been referred to as the 'Polish Carcassonne', and archaeology plays an important role in promoting the significance of cultural heritage. In the case of Chełmno, this includes the ongoing excavations at Kałdus, which relate to the early-medieval settlement of this micro-region (Jaroszevska-Brudnicka, 2010, p. 181). In the case of Gniew, the historic urban fabric, particularly the largely intact walls, are recognised as fundamental to local identity whilst constraining the development of the modern town (Gurzyńska, 1998–1999).

These markers have been largely driven by local history enthusiasts, whilst every town proudly displays its coat of arms on its public notices, and these are an integral part of the identity of its modern civic institutions. These heraldic emblems are in some cases authentic (e.g. Elbląg, Gdańsk) whilst in other instances they are later representations reflecting the desire for specific associations. For example, the arms of Lubawa include a representation of Christian, the first Bishop of Prussia, who is credited with the conversion of the Prussians at this settlement. The most famous case which has involved archaeologists is undoubtedly Nicolaus Copernicus (1473–1543), who was born in Thorn, served as a canon at Frauenburg and popularised the theory of heliocentricity. Shortly before he died, his work was published resulting in a stormy debate on the Church's monopoly over astronomy. Copernicus has remained an influential figure but, in recent years, his physical body was also the focus of an

archaeological investigation. The enduring political and social importance of historical personalities is a widespread phenomenon reflected not only in the monumentalisation of their real or alleged burial sites, but also in the exhumation, display and reburial of their physical remains. In the case of Copernicus, he was originally buried in an unmarked grave resulting in a question over the validity of any remains identified as such. In May 2010, the supposed body of Copernicus was reburied in a tomb in Frombork cathedral, marked with a black granite slab which identifies him as a church canon and as the founder of the heliocentric theory. The tombstone is decorated with a model of the solar system with the sun and the six planets he diagrammed in their orbits around the sun. His importance in promoting the identity of local communities is also evident from the various statues of the astronomer set up in the nineteenth century, such as in Toruń, Olsztyn and Warsaw. Outside of more detailed historical biographies, Copernicus is less well known for playing an important and versatile role in the political life of Royal Prussia, which included negotiations with the Teutonic Order in the early-sixteenth century (Biskup, 2006).

In the Kaliningrad Oblast, the general situation is at present unclear. There is relatively little funding to conserve and stabilise the medieval monuments, many of which are overgrown and inaccessible. Following the Soviet occupation of Königsberg and the deportation of the German population, the city (and region) was renamed Kaliningrad. In 1962–1963, there was a massive rebuilding of the city with the aid of the central state. The removal of the city's German identity saw the systematic demolition of buildings and monuments. This was countered by local historical research in the late 1960s, which aimed to preserve the city's German and 'European' past, representing a form of dissent against the Soviet regime, even though the population had no ancestral connection to the city or the region (Sezneva, 2005, pp. 180–181). What began as animosity from the Russian-speaking population transformed into recognising German heritage as cultural property, reflecting by rebuilding and preservation. The most prominent example of this is the cathedral in Königsberg. The idea of preserving German buildings in a 'traditional Russian style' is seen as a sufficient response that bridges the German past and Russian present; the rhetoric of modern conservation within Kaliningrad is very much pitched in a European context (*ibid.*, p. 192). Following its restoration, a process dogged by controversy and criticism, the cathedral is functioning as a public 'multicultural centre'. Elsewhere in the region, historical monuments are coming under the ownership of various groups with their own agendas. In 2010, over 50 castles and former church buildings which had belonged to various religious communities before the Second World War were reassigned to the Russian Orthodox Church. Included in the request were a number of medieval Sambian churches and the Order's castles at Georgenburg (Mayovka) and Schaaken (Nekrasovo). The appropriation of medieval sites by the Orthodox Church, which included a failed attempt to procure the cathedral in Königsberg, has been interpreted by some as a campaign to replace the external values of the predominantly German

heritage with what are seen as more relevant Russian values, embodied in many respects by the Orthodox Church (Safronovas, 2010). The debates concerning the future of medieval sites in the Kaliningrad Oblast and the ownership of formerly German heritage will have direct implications for archaeological investigations and research programmes. Arguably the most vital contribution made by archaeologists here is highlighting the richness of Sambian culture before the crusading era, particularly in the Viking Age. Indeed, archaeologists have been leading the way in promoting familiarity with the monuments and culture of pre-Christian tribal Prussia in all the Baltic countries.

Reviving memories of pre-Christian tribal Prussia

Jerzy Antoniewicz (1950a, p. 52), writing five years after the end of the Second World War, stated that the value of historical monuments was linked to both tourism and regional knowledge. He stated that this should include archaeological monuments and sites, a regular feature of tourist trails with clear didactic and cultural significance. He called upon their urgent conservation, essential for creating 'archaeological reserves'. In his view, the preservation of sites and monuments *in situ* rather than simply in museums, secured their relevance for future generations. Antoniewicz was one of the pioneers of post-war Prussian (i.e. then north-east Polish) archaeology, although his work focused very much on early-medieval Prussia and, in his publications, the Teutonic Order was typically cast in a negative light. Naturally, the historical context for this perspective, framed at the end of the struggle with Nazi Germany, is altogether clear. But the Order's sites were not ignored; rather they were seen as an integral part of the archaeological landscape. In the last sixty years, there have been several museum exhibitions focusing on the Prussian tribes. In 1962, the Archaeology Department of the Museum of Białystok organised 'Jaciewicz w świetle wykopalisk' ('The Jatwingians in the light of excavations'), an exhibition focused exclusively on the first millennium AD – a golden age for Sudovian material culture (Jaskanis, 1962). In 1989, the Museum of Warmia and Masuria presented 'Barcja i Galindia w źródłach archeologicznych' ('Barta and Galindia in archaeological sources'), this time encompassing the final phase of indigenous culture in the thirteenth century (Ziemlińska-Odojowa, 1989). The neo-pagan movement in the Baltic, which is characterised by ethnic nationalism and challenges Christian values, draws on the rich body of archaeological work associated with prehistoric Prussia. Neo-pagans are searching for both a primordial past and a pure ethnic culture, although this is much more prominent in Lithuania than in the former Prussian tribal lands, where demographic changes have resulted in the absence of any ethnic continuity between the medieval and modern period. The so-called 'Romuva' movement was established in Lithuania, promoting the idea of a shared pre-Christian Baltic culture (Shnirelman, 2002). The Prussian landscape has also been revived by archaeologists and amateur enthusiasts in Poland, and by nationalist tradition

in Lithuania where the independent pagan past has been glorified. In the castle park in Raudonė (formerly Bayerburg) stands the 'Gediminas oak'. As Gediminas died during a later siege of the castle in 1341, a local legend attests that the Gediminas Oak of the park complex is where the grand duke was mortally wounded. The castle itself was last rebuilt in the nineteenth century by Cesare Anichini as a brick, neo-gothic structure inspired by the Teutonic Order's Prussian architecture and, in this respect, the whole landscape complex represents a construction of iconic monuments – Christian castles and pagan trees – associated with this fourteenth-century frontier. The use of medieval (e.g. Trakai) and later neo-gothic castle architecture in Lithuania provides an interesting case study of the fluidity of Christian and pagan material identities in both the distant and recent past. More explicit links with the pre-Christian past are found at the strongholds in the former Prussian-Lithuanian borderlands, but the way these are presented to the public vary between North Poland, Lithuania and other parts of the eastern Baltic.

Landscapes of martyrdom

Prussia is associated with the martyrdom of saints Adalbert and Bruno and, whilst the cult of St Adalbert was redirected to Gniezno and Prague, both have become the subject of modern mythmaking and imaginative projections of the past (see Białuński, 1999, chapter 6). Heinrich Voigt's (1907) *Brun von Querfurt* and E. Trincker's *Chronik der Gemeinde Lötzen* (1912) popularised Lake Niegocin (German Löwentinsee) near Giżycko as the site of Bruno's martyrdom. A monumental cross was erected by the local Evangelical church in 1910 overlooking the lake whilst, in the same year, the rebuilt Catholic chapel in Giżycko was dedicated to St Bruno. In recent years, the site around the lakeside cross had been developed in preparation for the millennium celebrations of Bruno's martyrdom. New steps were installed and the processional route concluded with a controversial large stone altar placed in front of the cross, although laws governing the conservation of historical monuments meant this had to be situated further away than originally planned (Figure 8.9). St Bruno remains a promoted figure in Giżycko; most recently the Teutonic Order's castle was rebuilt as a hotel at a cost of 30 million złoty and named 'St Bruno'. Interestingly, the construction of a neo-gothic facade around the only surviving building of the castle on the one hand echoes the spirit of the nineteenth-century Prussian medieval revival whilst, at the same time, ignoring the association of the site with the Teutonic Order in its publicity and presentation.

St Adalbert, with his shrines in Gniezno and Prague, remains popular in Poland as well as the Czech Republic, although the location of his martyrdom continues to provoke discussion (see also chapter 2). However, it is interesting to note the relationship between the imagined location and modern geopolitics; a site of martyrdom in Prussian Pomesania (Święty Gaj near Elbląg), i.e. within the bounds of North Poland, is more accessible and preferable to



FIGURE 8.9 The cross of St Bruno, overlooking Lake Niegocin just outside Giżycko in Masuria

promoters of the saint's cult today than the alternative location – Sambia, within the largely inaccessible Russian Kaliningrad Oblast (Śliwiński, 2004, p. 47). Near the village of Beregovoe (formerly Tenkitten), a large monument in the form of a cross was set up to mark the alleged place of his death, although this has comparatively little meaning for the modern population of the Kaliningrad Oblast. The cult of St Adalbert was promoted in Gniezno because of its political affiliations but, in former Prussian lands, its popularity is largely a recent development. Here, cults prevalent amongst rural peasant communities were particularly focused on St Anthony, the Virgin and the Sacred Heart, whilst interest in St Adalbert is a product of the second half of the twentieth century. One of the factors behind his recent popularity is archaeological research around Bałart and Święty Gaj (meaning sacred grove), one of the presumed sites of the saint's martyrdom. In the folklore created in the last few decades, individual parts of the landscape around Święty Gaj have been linked with the saint's demise. In Pomerania, another site associated with Adalbert is Gorzędziej where local knowledge refers to a boulder where the saint is supposed to have moored his boat; the other is a site in Gdańsk linked with the original baptism of the early-medieval population. The modern cult is reinforced with the saint's relics from Gniezno (Paradowska & Urbańska, 1996, pp. 48–51). Dorothy (or Dorothea) of Montau, arguably medieval Prussia's most important local saint, has been perceived as uniting Poles and Germans from the Middle Ages into the present day. The primary aim of the excavations

in the cathedral from 2006–2008 was to identify her grave (Wiśniewski, 2009). However, this was unsuccessful and renovation work in the early-nineteenth century disturbed many of the internments and their associated tombstones. It is likely that Dorothy's grave was destroyed during the suppression of her cult in the sixteenth century. Such memories and their association with specific places have been reinvented and endure through the efforts of the Catholic Church and its congregations, partly inspired by whilst effectively sidestepping academic discussion. But more important than the Prussian saints are the memories of the great victories over the Teutonic Order, which resonated particularly strongly in the twentieth century on either side of the Second World War.

Remembering Płowce (1331) and Grunwald (1410)

The battle of Płowce is less well known than Grunwald (Tannenberg), but resonates strongly in the history of Polish–German nationalism into the twentieth century. It was a deciding battle in the war between Poland and the Teutonic Order from 1327–1332, and resulted in the tactical retreat of the Order's armies back across the Vistula into the Kulmerland without annexing Kuyavia. Memories of the battle began to circulate again in 1817, when Julian Urzyn Niemcewicz wrote about the event and supported the erection of a commemorative stone monument. In 1927, preparations were made for celebrating the 600th anniversary of the battle, which resulted in the construction of a 20m-high mound in Płowce finished in 1933. This monument was subsequently destroyed by the Nazis following the occupation of Poland, along with the battlefield sculpture set up in the nineteenth century. A second commemorative statue was installed in 1961. The previous year had seen the construction of the heritage complex on the battlefield of Grunwald, highlighted by a granite monument designed by Jerzy Bandura and Witold Cęckiewicz, in close proximity to the chapel built in 1411 (Wolski, 2008, p. 57). The supposed site of the Grand Master's death is marked by 'Jungingen's stone'. Excavations in the vicinity of Grunwald in the second half of the twentieth century have coincided with major national celebrations of its anniversary (Hoffmann, 2009, p. 143). The battlefield has been a major tourist attraction since the early-twentieth century, with increasingly developed infrastructure including, from 2010, new museum facilities built for the anniversary of the infamous Polish–Lithuanian victory over the Teutonic Order on 15 July 1410. The memory of the battle, enshrined from the fifteenth century, resulted in a series of commemorative monuments. The first of these was put up in Cracow in 1910 on a wave of fervent patriotic and nationalistic outpouring. The destruction of the monument by the Nazis in 1940 represented an equally nationalistic response, as did its restoration in 1976. At the World Exhibition in New York in 1939, the Polish Pavilion included a bronze sculpture of Władysław Jagiełło on a horse wielding the

two crossed swords provided by the Order, with an inscription making a direct reference to the victory at Grunwald. The sculpture, built by Stanisław Ostrowski was purchased by the city and set up in Central Park (Wolski, 2008, p. 57).

The defeat of the Order is celebrated on one of the highest value Polish banknotes – 100 złoty – and even if Poland were to adopt the Euro as its national currency, the memory of Grunwald is so thoroughly disseminated and engrained throughout Polish culture that it will be perpetuated into the future; vividly expressed in monuments scattered throughout Poland as well as Lithuania, but also regularly revisited in the popular media, in annual re-enactments and at the site of the battlefield itself. Comparisons with the English memory of Agincourt are only appropriate until the nineteenth century; subsequent improvements in Anglo-French relations have more or less consigned this to school textbooks and there is certainly no monumental celebration of the Hundred Years War, in contrast to the hundreds of statues and effigies of Jeanne d'Arc in France. Indeed, the situation on either side of the Channel was very different in the twentieth century; the memory of Grunwald was revived repeatedly during and after the Second World War. In 2010, the event was celebrated in numerous ways; the response from the Castle Museum in Malbork was to hold an exhibition celebrating the art of medieval Prussia and to organise a conference which produced a singularly important catalogue and volume of papers on the subject (Pospieszna, 2010). On 10 July 2010 in Kurzętnik, a village south of the New Town of Lubawa held a festival commemorating the 600th anniversary of the presence of the armies led by Jagiełło and Ulrich of Jungingen. The events were attended by international delegates and included the opening of an amphitheater built on the ruins of the Kulm Chapter's castle. Even more spectacular was the re-enactment on the battlefield itself, which attracted record numbers of visitors.

In Lithuania, similar monuments celebrate the defeat of the Order such as the sculpture of fighting knights at Pabaiskas, where the origins of the town can be linked to the foundation of the church after the battle in 1435. Closely related to the battlefield group are monuments marking important events associated with the cessation of the Order's territories, which were also put up in the second half of the twentieth century. The signing of the Treaty of Melno is commemorated by a plaque mounted on a concrete pillar at the village of Melno. The boundary marker near Elk marking the border between the Order's state with Prussia, Poland and Lithuania was replaced by a replica (Figure 8.10). What is interesting is that in Poland, these monuments relate to the fifteenth century – to the wars between the Polish-Lithuanian state and the Order, rather than to the crusading period against the Prussians. This is not surprising, but it has contributed to obscuring the memory of tribal Prussia in the modern south-eastern Baltic landscape. Current interest in pre-Christian Prussia has been generated by historians and archaeologists from both professional and amateur backgrounds and, in terms of monuments, is entirely



FIGURE 8.10 The monument situated between the villages of Prostki and Bogusze near Elk, marking the border between Ducal Prussia, Poland and Lithuania

restricted to the most striking, preserved early-medieval strongholds, artefact assemblages in museums and the surviving stone *baby*, some of which are on display in museum grounds as at Gdańsk and Olsztyn (see also chapter 2).

Conclusion: the dissolution and reconstruction of medieval Prussia

This chapter has surveyed a much longer chronological range encompassing the secularisation of the Order's state and the reinvention of multiple aspects of pre-Christian, crusader era and late medieval Prussia. In many respects, the structural modifications which took place in the castles and towns of the *Ordensstaat* in the fifteenth and sixteenth centuries came to define their form

in the nineteenth- and twentieth-century era of conservation and restoration. From an archaeological perspective, the understanding of this complicated period continues to be dominated by detailed historical narratives. Excavations of castles, churches and town buildings invariably identify post-medieval layers which are typically used to verify or elaborate known chronologies. More nuanced glimpses of daily life at the end of the fifteenth and sixteenth centuries are best represented by the extensive excavations in Gdańsk and Elbląg. However, the use of castles in Royal and Ducal Prussia is of evident interest to archaeologists and has formed the basis of major research projects, as at the outer bailey in Malbork castle. In many instances, the taphonomy of these sites is complicated and only enables broad chronologies to be used; for example, a basic distinction between the 'Order's occupation' and 'Royal occupation'. The German restorers of the nineteenth and early-twentieth centuries sought to return the monuments of the Teutonic Order's state to an imagined state reflecting the very peak of its political power – the end of the fourteenth century. The conflicts of the fifteenth century defined a new era of Polish and Lithuanian heritage in the south-eastern Baltic. The striking exception to this was Sambia and Königsberg, where German culture continued only to be suppressed by the Soviet regime in the second half of the twentieth century. The mixed population of Masuria, the quintessential medieval frontier, would later become the target of both German and Polish nationalism. Today, the most striking monuments of medieval Prussia – the legacy of the Prussian Crusade – which are the focus of archaeological/architectural research and heritage management, are represented by overgrown ruins which are in danger of further degradation (e.g. Pokrzywno, Balga), carefully restored castles which owe much of their appearance to earlier phases of restoration (e.g. Malbork, Kwidzyn), partially restored ruins which have often been the focus of archaeological investigations (e.g. Toruń, Klaipėda) and structures which have been virtually reinvented (e.g. Giżycko). In contrast, the strongholds of the former Prussian tribes are very much part of the rural landscape, often overgrown, not always easy to access or find but, nonetheless, impressive reminders of an extinct European culture and a striking legacy of the thirteenth-century crusades.

9

CONCLUSION

Holy war and colonisation

These struggles, this holy Knightly Order of the Hospital of St Mary of the German House has zealously imitated and has deserved to be graced with many honourable members, for there are knights and chosen fighters, who for the love of honour and the fatherland have exterminated the enemies of the faith with a strong hand. They also, from abundance of love, receive visitors and pilgrims and the poor. They also from tender-heartedness, serve with fervour the sick who lie in hospital.

(*The Book of the Order*, Prologue, 4; Sterns, 1969, p. 203)

The Teutonic Order and the end of tribal Prussia

The quoted passage comes from the early statutes of the Teutonic Order and outlines the roles fulfilled by this institution. As with all the military orders, the Teutonic Knights combined elements from secular military and monastic communities. This unlikely combination was accommodated within the framework of crusading ideology. Recognising the Teutonic Order's material culture in Prussia as the archaeology of a military order, this book has deliberately stressed the religious aspects of this group and argued that it is more useful to think of its castles as fortified monasteries. Even the Order's smaller fortified sites which may have fulfilled very basic functions as border watch towers, administrative centres, residences or manors should be considered from the perspective of a military order (Boas, 2006). The *Ordensstaat* was an unusual medieval European polity. It was formed during the crusading period and developed an administrative structure to deal with the management of conquered and colonised territory. Its chancellery was more sophisticated than those of contemporary Polish and other European states until the fifteenth century, and the central treasury was comparable with the financial infrastructure of Hanseatic towns. But unlike western Baltic polities, medieval Prussia was run collectively by a military order in the manner of a religious corporation, represented abroad by the figure of the Grand Master (Nowak, 1999, p. 83). Its distinct geographic and cultural context means that it cannot be understood simply as a variation of the territorial organisation of the military orders in the Holy Land, Iberia or elsewhere. However, from an archaeological perspective, the organisation of

life within and across Teutonic Order, Hospitaller and Templar sites, amongst others, can and should be compared. This level of comparison is beyond the remit of this book, and awaits future scholarly attention.

The Teutonic Order, like the other military orders, was a complicated institution with many facets. From an archaeological perspective, it is tempting and convenient to simplify this complexity when focusing on individual structures such as castles, or when creating a polarisation between castles and towns, in part inspired by the political events of the fifteenth century. But it is clear that in recent decades archaeologists are recognising and exploring this complexity. Three key aspects of the impact of the Teutonic Knights on indigenous tribal Prussia have been highlighted in this book: first, the Order's role in colonisation and the development of settlement; second, its role in disseminating Christianity; and third, its role as a ruling institution with a crusading ideology. The written sources provide abundant details of the Order's changing organisation and motivations. Even in the early stages of the Prussian Crusade, the Teutonic Knights were already involved in land management, the development of trade and the political schemes of Polish and Imperial magnates. The development of their state fused all of these aspects into a unique process, where a crusading institution formed a distinct and fully functioning European polity. The archaeology of some of the Order's structures suggests the monastic lifestyle of the Knights was refined in the fourteenth century and maintained into the early-fifteenth century, however, the written sources point to increasing secularisation resulting in an internal crisis. The fifteenth century is characterised by recurring secular wars with Poland-Lithuania and, following the upgrading of castle and town fortifications, there is a separation between the Order's occupation and subsequent, post-medieval phases. Prussia is officially split in 1466 following the Second Peace of Thorn, and the Order is finally secularised in 1525. The final six decades of the Order's management of eastern Prussia are far better known from historical sources than archaeological investigations. In this respect, the archaeology of medieval Prussia is largely concerned with the period of conquest and subsequent colonisation.

Conquest and colonisation

The final phase of Prussian strongholds testifies to the wholesale replacement of one culture with another in the thirteenth century, although the nuances of this transition remain to be explored at a higher chronological and spatial resolution (see also chapter 3). The Prussian Crusade did not completely obliterate the population, although the conquest is often described in popular and scholarly literature as a form of 'ethnic cleansing'. The Prussian language continued to be spoken by the surviving indigenous population, and many scholars accept some form of shadowy continuation of pre-Christian customs – if not beliefs – into the seventeenth century (Jouet, 1989, p. 52). Archaeologists typically synchronise their findings with the narratives of the Prussian Crusade,

particularly Peter of Dusburg and, to a lesser extent, Nicolaus of Jeroschin. This is not a textually led approach, although there are examples where research projects seek to identify 'lost sites' mentioned in written sources, and any juxtaposition between written and archaeological sources is a false dichotomy for these are merely different types of data relating to the same period, and each has a specific context. The challenge for archaeologists is to formulate research questions relating to the material culture they excavate, and to incorporate the fullest range of data that is required to answer these questions. Many different groups participated in the formation of the Order's state. Some of these groups, such as the surviving indigenous Prussians, remain poorly understood from an archaeological perspective. The Germanisation of the Prussian nobility was accelerated by their frequent association with the colonising elite, resulting in the adoption of the language and inter-marriage (Urban, 2000, p. 364). However, other cultural elements may have remained unchanged, as evident amongst certain indigenous rural communities. This hybridisation has not been explored in any detail from the perspective of material culture. Urban colonies, on the other hand, can be studied at the level of the individual property. Today, the major towns of the Order's state, such as Elbląg (Elbing), Toruń (Thorn) and Gdańsk (Danzig), are well known from post-war archaeological investigations, and ongoing excavations at Kaliningrad (Königsberg) will provide unique insights into the rise and fall of one of the most important urban colonies in the broader history of the Order's state, which until now is almost entirely understood from unevenly represented written sources. Rural colonies are also poorly known from an archaeological perspective. Their presence is largely derived from written and cartographic sources, with traces of occupation verified by archaeological excavations. The regional surveys conducted by Mieczysław Haftka (1987) in the vicinity of Malbork (Marienburg) and by Dariusz Poliński (2003) in the Kulmerland provide an excellent template for comparing early and late medieval rural settlement patterns, which can be synchronised with more detailed studies such as palaeoenvironmental reconstruction. However, there is an absence of detailed studies of individual villages comparable to planned Frankish settlements in the Kingdom of Jerusalem, such as *Parva Mahomeria* (Ellenblum, 1998, pp. 86–94). One exceptional example is the site of Biała Góra south of Malbork, although a settlement layout has not been detected to date in the excavated areas (see also chapter 3). The process of colonisation by Christian settlers brought with it a seemingly different attitude to the exploitation and management of resources, although this interpretation is tentatively made given the limits of the available data. Nonetheless, when comparing the relative impact of early and late medieval settlements on the Prussian landscape, it is interesting to note that major ecological transformations take place after the crusading era, except in the borderlands where they begin during the period of Slavic colonisation (see also chapter 7). In addition to the evident correlation between the growth of the population in Prussia in the fourteenth century and the exploitation of natural resources, the

abandonment of pre-Christian veneration of sacred trees, groves and woods may also have facilitated deforestation.

The incorporation of Prussia into the geopolitical superstructure of 'Christendom' often falls within discussions of 'Europeanisation', although since this was driven by western and central European Catholic institutions, perhaps 'Latinisation' would be more accurate (Karczewski, pers. comm.), whilst 'Germanisation' is often used by scholars, since the majority of crusaders and colonists were from German-speaking regions. In southern Prussia from the Kulmerland to the Masovian borderland, 'Polonisation' has been used to describe the prevalent role of Polish knights and peasants in the process of colonisation, although further distinctions have been made with reference to Masovians (and later the development of a Masurian culture). The colonists brought their language, their customs, their particular brands of Catholic Christianity and their distinct material culture with them, and the latter has been used to identify colonisation horizons at archaeological sites in tribal Prussian lands. These differences are clearly evident in the material signatures of the crusading era, but a more protracted period of colonisation and cross-cultural interaction was already evident before the crusading era (see also chapter 2) and would continue into the seventeenth century, when the last traces of the Prussian language vanish from the written record. There is no evidence for the type of ethnically driven agenda of Germanisation or Polonisation popular in the nationalist narratives of the nineteenth and early-twentieth centuries; moreover such terms imply the wholesale acceptance of ethnically distinct modes of living. Whilst new organisational structures were imposed by the ruling elite – such as the commandery and parochial systems – at the level of the individual indigenous settlement or micro-region there is evidence for diversity in the acceptance, modification and rejection of external cultural elements. In terms of material culture, this is perhaps most clearly reflected in the continuation of pre-Christian rites at cemeteries in eastern Prussia (see also chapter 6). But there is also evidence for the creation of new identities. The process of internal colonisation by subsequent generations of settlers in the fourteenth century led to the reinvention of Prussian identity in the conquered territories. National identity is often linked to a literary foundation and the strength of a regional language (Bojtár, 1999, p. 348). This developed late in Latvia and Lithuania, with the majority of written historical sources in another, intrusive language (i.e. Latin, German and later Polish). In Prussia, the development of a cohesive theocratic polity dominated by colonists resulted in the emergence of a new collective identity. Already in the early-fourteenth century, the patricians of the largest towns and the Knights in the western parts of the Order's state considered themselves as *Preuße* – Prussian, although separate from the surviving indigenous Prussians (Nowak, 1999, p. 85). But whilst surviving indigenous Prussians were segregated from the colonists in many respects, their identity was also gradually changed. This was not simply a question of the gradual extinction of this Baltic language, but also the transformation of local lifestyles with the introduction of taxation, the

adoption of western agricultural practices and the dissemination of Christianity (Urban, 2000, p. 363). The Order's distinct, institutional identity is evident in its archaeological traces. These are largely represented by castles which, on the face of it, are self-contained sites with discrete, manageable boundaries, but centuries of later occupation, destruction and rebuilding have created significant taphonomic problems for archaeologists. As a result, our understanding of castle communities is relatively fragmentary and often linked to broad chronological horizons. High resolution dating remains a concern, and has only been possible with a critical mass of timber samples that can be dated by dendrochronology as in Elbląg (Ważny, 2004). Furthermore, the link between castles and their associated settlements or towns needs to be explored in more detail with synchronised research programmes. It is clear that castles were fully integrated with their associated colonies, typically through the system of outer fortifications but, at the same time, they were internally segregated through moats, walls and gatehouses. At the level of the individual site, socio-topographic mapping has begun to be attempted for towns such as Gdańsk on the basis of the changing distribution of plant macro-fossils (Badura, 2011), whilst detailed social mapping on the basis of imported luxury items remains to be carried out in towns such as Elbląg (Nawrońska, 1999, p. 382). Castles too had their internal social divisions, although from an archaeological perspective these have not been investigated so much given the patchwork nature of castle excavations. Interesting examples of socio-topographic modelling on the basis of faunal remains recovered from different areas of individual sites has been produced by Daniel Makowiecki (2010) for Kałdus, whilst nothing comparable to Anton Ervynck's (1991; Ervynck & Woollett, 2006) intra-site study of the assemblages from Sugny castle in the Ardennes has been done for the Order's Prussian convents. Socio-topographical models of micro-regions in the *Ordensstaat* have been proposed by archaeologists, particularly in north-east Poland, where the changing settlement pattern from the Migration Period to the Late Medieval Period is being increasingly understood from multi-disciplinary perspectives.

Whilst earlier scholarship focused on medieval Prussia in isolation or in connection with the eastward migration of German-speaking groups, this has been replaced by situating tribal lands and the *Ordensstaat* within a broader international context. In the latter half of the twentieth century, archaeologists have actively promoted inter-regional studies of early-medieval (or Late Iron Age) Baltic culture recognising connections across the entire Baltic Sea region, although the majority of Polish works on the Order's castles and towns tend to exclude Sambia due to the relative inaccessibility of archaeological research in the Kaliningrad Oblast. Similar international perspectives have emerged from the pluralist school of crusader history popularised by Jonathan Riley-Smith (2002; originally published in 1977). The pluralist school broadened the definition of crusade beyond those directed to the Holy Land to any holy war authorised by the papacy, opening the door for inter-regional comparisons and providing the crusading movement with a broader European context. But the

study of crusading frontiers is more than a history of religious devotion or military expeditions – it is concerned with the creation of new polities associated with a variable process of colonisation. The Teutonic Order took advantage of an existing system that was functioning in the Holy Roman Empire, utilising locators whenever possible to encourage new settlers. The Teutonic Knights had also experienced this during their time in the Holy Land, where the consolidation of the crusader states was made possible by encouraging colonists not long after the conclusion of the First Crusade. In Transylvania, the Order had been invited to secure land already colonised by German settlers from the mid-twelfth century (see also chapter 3). In all of these regions, the Teutonic Knights, like the other military orders, had operated within a frontier. They fulfilled an explicit and important role of providing security for Christian colonists – in the Holy Land against neighbouring Muslim states, as well as bandits, in Transylvania against Cumans and in the Baltic against the indigenous tribes who were perceived as a threat to converts. The construction of castles required a significant amount of supporting infrastructure in terms of provisioning, fuel and building materials; these, in turn, would stimulate settlement growth and the development of associated trade. The latter was closely associated with the opportunistic enterprises of predominantly German merchants, and commerce went hand in hand with crusading in the eastern Baltic. The link between the castles of the military orders and settlement is one that is clearly seen in the Kingdom of Jerusalem (Ellenblum, 1998; Boas, 2006). By adopting the policy of deliberate colonisation in the Baltic, the Order can be seen as following a similar pattern of developing an infrastructure required to support its convents. The establishment of a dynamic administrative structure, which emerged during the crusading decades of the thirteenth century, would ultimately facilitate the detailed exploitation of the landscape and so the process of colonisation shadowed the organisation of the Order's state, initially focused on the heartland of the lower Vistula and later moving towards the eastern frontier with Lithuania. The process of colonisation intensified from the fifteenth century in the eastern parts of Prussia once some level of political stability had been achieved (see also chapter 4).

Within a generation, key elements of this infrastructure – in the form of towns and later rural settlements – would take on a life of their own. As towns became major centres of production sponsored by the Order, by church institutions and international markets, they developed their own distinct civic identity. Although the Kulm Law and the planning of towns was a product of the Order's design, these towns would become relatively quickly interdependent and then independent by challenging the political *status quo* in the fifteenth century. Similar levels of autonomy are evident in the countryside; the construction of brick churches in the fourteenth century was largely driven by rural communities. We are able to perceive the Order's control over these communities in the form of a landlord–tenant relationship, but again this was more nuanced and the material culture of rural communities moves us away

from any basic top-down model of exploitative lordship. From a European perspective, the role of the military orders in stimulating settlement was a typical trend characterising other frontier regions of Christendom. In the case of the south-eastern Baltic, the 'real clash in the Prussian and Lithuanian crusade was not between Christian and infidel, but between the different approaches to Christianising, settling and exploiting the area' (Fischer, 2007, p. 275). It is precisely these trends that archaeologists have been investigating, rather than the military encounters that define the major crusading narratives. The relationship between colonists, the surviving indigenous population and the Teutonic Order in Prussia is therefore both interesting and complex, warranting further attention from archaeologists with inter-disciplinary objectives. One of the most important developments in future research, as suggested by the increasing number of international scholarly collaborations and publications, is the comparative and detailed study of the Order's state in Prussia and Livonia. Both regions came under the political aegis of the same institution from 1237 and, whilst historians have highlighted important contrasts and similarities between the two, from an archaeological perspective this approach has been relatively limited to date.

Medieval Livonia: a mirror of the Prussian *Ordensstaat*?

This book has deliberately avoided in-depth comparisons with Livonia, the region to the north-east of Prussia that was the focus of a series of crusades which began several decades before the Teutonic Order's involvement in the south-eastern Baltic. The lands of medieval Livonia lie within the modern boundaries of north-western Lithuania, Latvia and Estonia, although the northern border of Livonia separated Estonia into two regions; the north was conquered and ruled by the Danish Crown until it was sold to the Order in 1346, following the suppression of the St George's Night Uprising. From the end of the twelfth century, missionary activity had focused on the mouth of the River Daugava, where the earliest Christian colony set up by Bishop Albert came under threat from local pagan attacks. This prompted the organisation of a crusading army to protect the converts and rapidly evolved into the full-scale conquest of the entire region. Instrumental in this series of crusades was a local military order, formed by Bishop Albert in 1202 and named *Fratres Militiae Christi* or the Sword Brothers. They were active in the first three decades of the thirteenth century until 1236, when the majority of the military order was destroyed in a battle against a Samogitian army at Saule. In 1237, the remnants of the Sword Brothers were incorporated into the Teutonic Order as its Livonian branch (usually referred to as the Livonian Order), along with their castles and lands. At this point, the Order had only been involved in its wars against the Prussians for a few years, and the middle decades of the thirteenth century saw attempts to unite its territories in Prussia with those in Livonia. The effective resistance of the Semigallian tribe ended in 1290, although the Livonian Order's armies

failed to occupy Samogitia and a depopulated borderland developed, marking the southern boundary of Livonia in much the same way as in eastern Prussia. The convent at Memel (Klaipėda) had been initially set up by the Livonian Order, but knights from the Teutonic Order's Prussian branch took possession in the fourteenth century. The transfer of the garrison was a purely internal matter and Memel remained a small frontier settlement throughout the fourteenth century, with the Order failing to physically unite its Baltic territories due to successful resistance from the Samogitians. Nonetheless, the houses of the Livonian Order were subject to visitations from Prussian representatives throughout the fourteenth and early-fifteenth centuries. It was only in the fifteenth century that the Livonian Order began pursuing a relatively separate foreign policy with Lithuania, and Marienburg's centralised control began to slowly wane after 1411. The synchronisation of politics between the two regions varied depending on the policies of individual Grand Masters and final severance from Prussia would only come in 1525 (Biskup, 2009, p. 324).

A number of the Livonian Order's castles have been excavated, including the two most important at Viljandi (Fellin) in Estonia and Cēsis (Wenden) in Latvia. Both Tallinn (Reval) and Riga have seen many decades of excavation and are comparable in many ways to the southern Baltic Hanseatic towns in terms of preserved material culture from the thirteenth to fifteenth century. The Order's castle in Riga has seen recent excavations and future archaeological investigations are planned in association with its redevelopment. The material culture reflecting the transition from the Late Iron Age through to the Late Middle Ages in Livonia has been synthesised by Ēvalds Mugarēvičs (1990), and framed as a struggle between incoming German and indigenous Baltic groups. In Estonia, a level of segregation has also been suggested between colony sites – towns and castles – and rural settlements and their cemeteries, with the existence of a syncretic society throughout the Middle Ages (Valk, 2004a, b). In this respect, archaeologists working in Estonia and Latvia have been concerned with similar issues: the chronology of the transition, the survival of indigenous culture and lifeways, the nature of colonisation and Christianisation and the broader regional context of medieval Livonian society. Future research integrating Livonian, Prussian and Lithuanian sites promises to develop new and exciting perspectives on the cultural transformations that reshaped the eastern Baltic Sea region in the thirteenth century.

Conclusion: paths to future research

The archaeology of medieval Prussia has been comparatively limited to date, partly due to the fact that this region remains somewhat peripheral politically and economically and, in Poland, overshadowed by a scholarly focus on the early-medieval origins of the Piast state and its late-medieval legacy in southern centres of power such as Cracow (Nowakiewicz, 2010). However, significant interest is growing in the archaeology of pre-Christian Prussia and the

Teutonic Order's state. In the case of the latter, the last few decades have seen the development of castles as museums with increasing international appeal, whilst the designation of the castle at Malbork and the town of Toruń as UNESCO World Heritage Sites, provided recognition of preserved expressions of human endeavours with global significance. Medieval Prussia has been studied at many spatial scales: at the level of the individual site, its immediate hinterland and its broader political territory, whether this is a reconstructed *lauks*, castellany, procuratorship or commandery.

There is an extensive amount of rescue excavation conducted in North Poland, the Kaliningrad Oblast and south-western Lithuania. In North Poland in particular, this work is often carried out by private archaeological firms. These excavations are not always formulated as a research design with clear aims and objectives; indeed, they are eclectic by nature and limited by the constraints of time and space. Post-excavation specialist analyses, such as palaeobotanical and faunal studies, are not routine due to lack of funds and the pressing demands of commercial fieldwork. High resolution studies such as micro-stratigraphic analysis are even rarer still. Documentation from excavations is deposited with the regional conservators, in much the same way as elsewhere in Europe, and contributes to a growing body of 'grey literature' that is not easily accessible for the wider academic (especially international) and public community. This creates a disjuncture between the existing state of knowledge and raw archaeological data, and remains a pressing issue for archaeologists around the world. This book has made some use of unpublished grey literature, especially linked to the author's own experiences at Malbork, Toruń and in Masuria. However, what this means is that there is a significant body of unpublished data that awaits collation and synthesis.

The destruction of pre-Christian Prussian culture has sometimes been openly lamented in the Polish archaeological and historical literature, but early-medieval Prussia has not been romanticised in the same way as the conflict between Europeans and Native Americans, although both frontier societies have been compared. The Prussian Crusade remains a brutal, uncompromising cultural event, even as earlier tensions between Slavic and Baltic peoples are increasingly understood through archaeological research. The crusading era saw the wholesale replacement of one culture with another, and the rapid integration of Prussia into medieval Christendom. In some respects, it reached the intensity of the Albigensian Crusade, where the sustained destruction of Occitan culture in the early decades of the thirteenth century became a rallying cry for regionalist revivals from the nineteenth century, and has left its mark on how the medieval heritage and historical landscapes of the Languedoc are presented today. Indeed, there are interesting parallels to be drawn from both crusading events, which happened within a few years of each other and which had a violent and lasting impact on the societies they targeted. Both resulted in forms of colonisation, the reshaping of polities and attempts at homogenising religious differences which were aligned with native ways of life. On the other hand,

the experience of the indigenous population in Livonia appears to have been quite different and our understanding of these contrasts can only be developed with inter-regional studies across the Baltic Sea region. In the case of Prussia, archaeologists, historians and art historians have increasingly replaced earlier nationalist constructions of the past with something much more interesting and relevant today – they have situated tribal and medieval Christian Prussia within its broader European context and furthered our understanding of a lost and, in many respects unique, society.

FURTHER READING

This book is primarily intended for English-speaking readers. The majority of scholarly studies on tribal and medieval Prussia, as well as the Teutonic Order in the eastern Baltic, are in Polish and German, alongside an increasing range of popular books. Publications in English have been growing in the last decade and, whilst some of these books touch on archaeology, this is the first detailed synthesis of the material culture of medieval Prussia. The following section is sub-divided into recommended background reading in English and the bibliography relating to the main text. Given the intended audience of this book, English versions of primary sources have been cited as much as possible, although the most widely used editions of these texts are in German and Polish. Primary and secondary sources are not separated, and are discussed in more detail in chapter 1.

Recommended studies in English

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